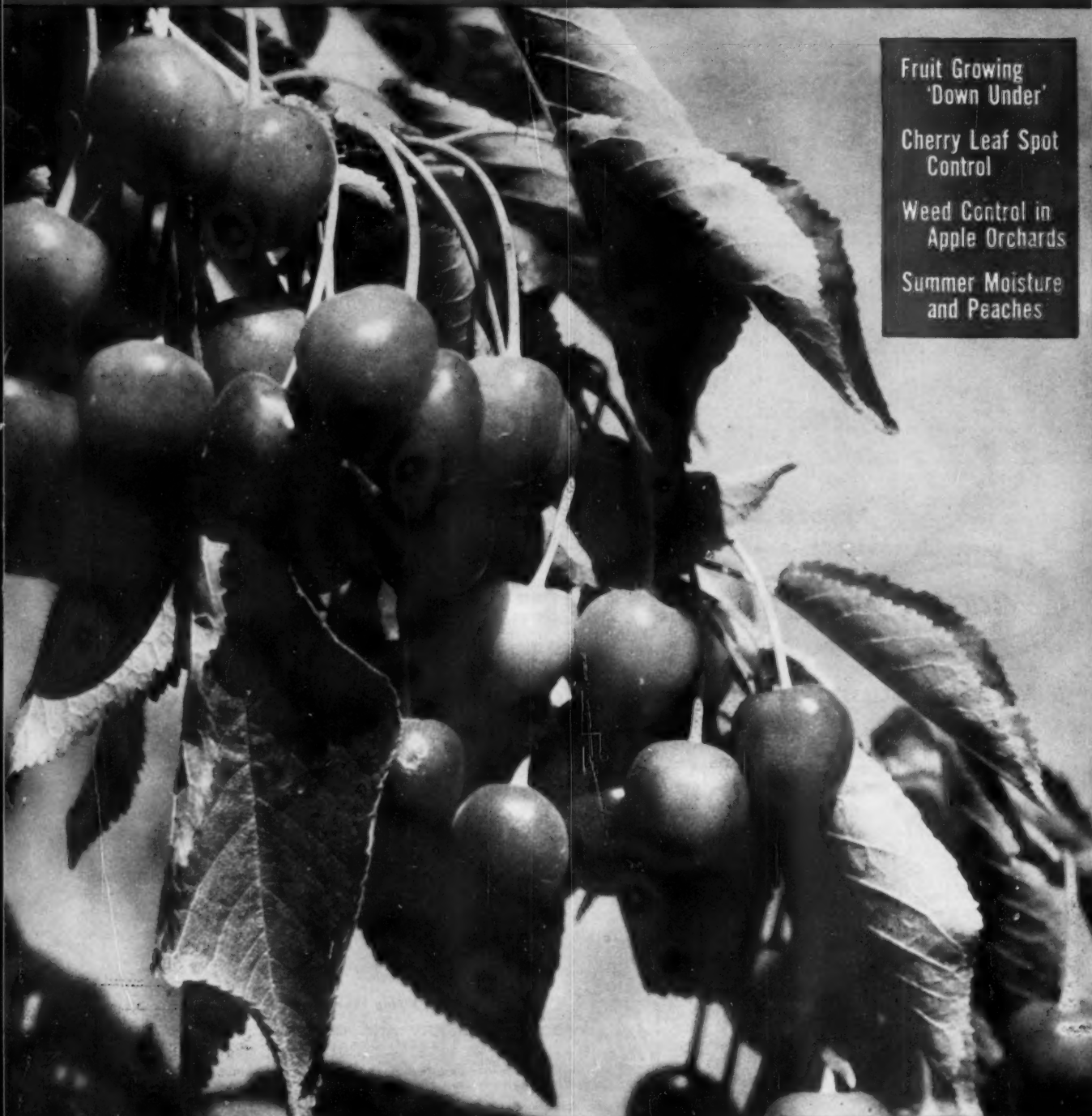


American Fruit Grower

WESTERN EDITION

MAY • 1959



Fruit Growing
'Down Under'

Cherry Leaf Spot
Control

Weed Control in
Apple Orchards

Summer Moisture
and Peaches

What 'Great Lakes' Means to Cherry Growers



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American Fruit Grower

Cover photograph showing clusters of the Bing variety of cherries is by Gladys Dieging.

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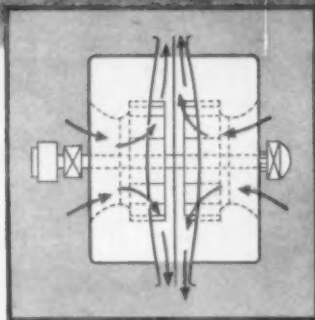
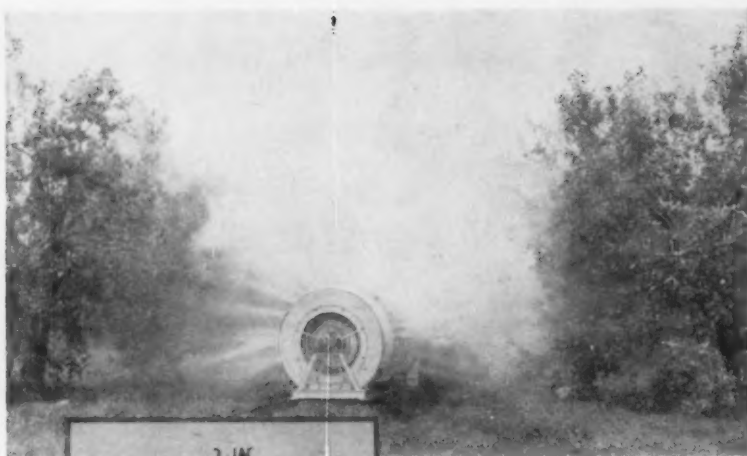
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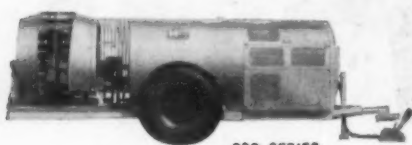
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LETTERS TO THE EDITOR

Wild Flavor Strawberry

Dear Editor:

Recently I read the description of the new strawberry variety, named Wild Flavor, in the list submitted by Drs. Brooks and Olmo (AMERICAN FRUIT GROWER, Jan., 1959). I wrote to the originator at the address given and my letter was returned, there being no such post office in the state of Wisconsin. Research in my atlas led me to send the letter to Roseau, Minn., and there it found the person to whom it was intended.

Mrs. Louise Wenner, who discovered the new variety, has written to me and her letter expresses the hope that many others will write in to inquire about buying some plants of this fine fruit.

Lake George, N. Y. George A. Webster

Processing Plant Sought

Dear Editor:

We are looking for an apple or juice processing plant in Ohio or Pennsylvania in which we could buy stock.

We have tried Knouse Foods, Berks-Lehigh, Great Lakes, and Sunshine, all in Pennsylvania, with no success.

We have an apple orchard and are looking for an outlet in the future.

Salem, Ohio R. G. Yaeger

Any processor reader interested in Reader Yaeger's proposition, please contact him at R. D. No. 3, Franklin Rd., Salem, Ohio.—Ed.

Consumer Complaint

Dear Editor:

I have long been disturbed by the progressive decline of our fruits offered in the markets due to poor quality. Apparently the grower has become more interested in tonnage than quality and as a result marketing has become more difficult.

Why this decline in quality during the past 25 years? The usual answers given are lack of freshness due to long distance transportation and the development of new varieties adapted more for the grower than for the consumer. But these answers are not valid for the old established varieties gathered fresh from the orchard where the decline has been equally great.

Fruit sales promotion is based on eye appeal and growers and sales agencies forget that there must be taste appeal also. Consumers may be tempted a few times to buy by the eye, but if they are continually gyped with gilded beauties that have no quality, they will soon join the increasing number of non-buyers of fruit.

Tampa, Fla. S. C. Hood

We cannot agree completely with Reader Hood. Fruit on the market today is vastly superior to what was offered a quarter of a century ago. Consumers expect better and better fruits every year. This is especially true with freedom from blemish, freedom from bruises, and good condition. What was acceptable 25 years ago no longer would be considered so. Admittedly there is much yet to do to make every single apple suitable to Mrs. Housewife. The bottleneck right now is in storage and handling, but we are making progress. C-A storage is one example, and maturity standards for harvest is another. The real reason for criticism is increasing competition and the fact that Mrs. Housewife expects more.—Ed.

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Second Cover	Codling Moth, Leaf Rollers, Curculio	DDT, TDE, Parathion	GUTHION Alone
Third Cover	Codling Moth, Mites, Aphids	DDT, Aphicide, Mitecide	GUTHION Alone
Fourth Cover	Apple Maggot, Codling Moth, Leaf Rollers, Fruit Worm, Aphids	Lead arsenate, DDT, TDE, Aphicide, Mitecide	GUTHION Alone
Fifth Cover	Apple Maggot, Codling Moth, Mites, Curculio	Lead arsenate, DDT, Mitecide, Parathion	GUTHION Alone
Sixth and Seventh Cover	Codling Moth, Leaf Rollers	DDT, TDE	GUTHION Alone

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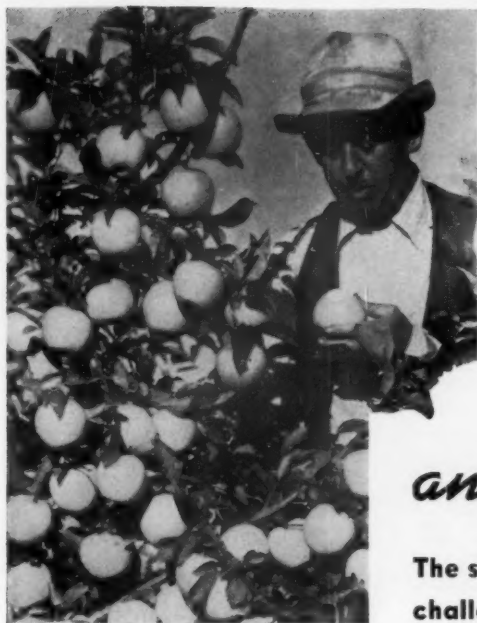
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American
Fruit Grower

• Fruit for Health •

YOU ...

and the NEW VARIETIES

The stepped-up tempo in breeding new varieties presents a challenge to every fruit grower

By **REID M. BROOKS**
and **H. P. OLMO**

*Register of New Fruit and Nut Varieties
University of California, Davis*

THE progress made in the production of new varieties is having widespread influence in modifying some of our fruit growing practices.

It has already become apparent to the peach grower that he must be prepared to change over his orchard as quickly as possible to take advantage of better varieties once they are proven in his locality. Thus, topworking of orchards is becoming common practice. This brings in new problems of how best to train and prune the grafted limbs, how to promote the best unions, the possible transmission of virus diseases, and the relative compatibility of different varieties.

A new variety may bring in its wake a pollination problem. Certainly the longevity of the orchard will be somewhat reduced. In still other cases, older orchards are pulled even before reaching the peak of production, and the replant problem becomes important.

Quicker evaluation of a new variety is a trend that is resulting in far more speculation than heretofore, and there are orchards in California that have changed varieties not once, but two and even three times in the past 15 years. Growers are thus taking far greater risks in order to be first in capitalizing on a really good find.

Varieties bred for low winter

chilling or for greater cold resistance enable the extension of culture into entirely new climatic and soil areas; thus the pattern of regional competition will change. Some growers, singly or in organized groups, make special trips to keep abreast of the performance of new varieties—and their knowledge of other competing areas has markedly increased. Strawberries and peaches are now grown commercially in Florida, winter-resistant apricots are extending plantings to areas formerly considered unsuccessful for this tender fruit.

New varieties have greatly extended the marketing season by producing types that ripen earlier or later, that are adapted to warmer and earlier ripening regions, or by enhanced storage qualities.

The number of varieties in commercial use is increasing by leaps and bounds. One advantageous result is the diversification of varieties within the same property to extend marketing over a longer season, thus spreading the use of labor and equipment over a longer period.

As new varieties increase in number, the problems of labeling, consumer identification, and marketing become more complex. One grower has even proposed that a group of varieties be given only a single name, so that the consumer may be more easily informed of the general type of fruit that he may expect.

Obviously too many varieties that look good but do not taste good will

eventually lead the housewife away from the fruit stand. It is up to the breeder of new varieties to be always mindful of the quality factor, and to forgo the temptation to release a beautiful fruit of poor quality that will quickly wane in popularity.

There is already, especially in peaches and nectarines, a great need for trial plantings of the many new varieties, small test blocks that could be set up in growing areas with the combined support of grower associations or public agencies. This could be a screening method to impartially evaluate varieties. It would save the excessive duplication and loss of time that growers now experience in testing new varieties, and in the end would result in quicker commercial adoption of those selections most worthwhile.

This function of new variety trials can be adequately performed by state experiment stations if plots are located in the principal areas of production. There are already some instances of this effort. Several experiment stations are running comparative trials of the new red Delicious sports, but there is still great need for expansion of this type of research.

With the adoption of the plant patent law, the short term monopoly production of a new variety becomes possible. Thus a breeder can sell or lease his patent rights to only a single grower and he would be able to control production for the life of the patent, which is 17 years. **THE END.**

A Yankee Looks at Fruit Growing 'Down Under'

New Zealand and Australian growers have some new and fresh ideas on how to produce and market fruit

By R. M. SMOCK

Cornell University, Ithaca, N.Y.

WHAT Delicious is to the U.S.A., Granny Smith is to New Zealand and Australia. It is a dual purpose, green apple which is very juicy and a remarkable keeper.

In New Zealand one sees Sturmer, Kidds Orange Red, Coxes Orange, Statesman, Ballarat, Tasma, and Dougherty apples. But one also sees Delicious, Golden Delicious, Gravenstein, Jonathan, and Rome Beauty in numbers.

In Australia one can see these American varieties, but again there are more Granny Smith and varieties like Democrats, Yates, Crofton, and Statesman.

Rootstocks: Every grower with whom I talked asked, "What rootstock do you use in New York?" My reply "seedlings" left them with their mouths hanging open. "But I thought Americans were so progressive, they said. I finally got an inferiority complex on this matter. I had no answer to the question, "How can you afford those big trees?"

New Zealanders started out with a clonal selection of Northern Spy as a rootstock. Spy gave them a semi-dwarf, high yielding tree that was resistant to woolly aphid. Chemical sprays will now take care of this insect, but growers still like Spy on new ground. However, they have found that trees on Spy replanted after Spy will not flourish.

More recently orchards have been planted on Malling XII and Malling XVI. We would think of these stocks as giving big trees, but heavy yields and heavy pruning keep these trees from about one-third to one-half the size of our monsters. Merton 793 will possibly be commonly used in the future.

In Australia there are rather wide differences of opinion on the relative merits of trees on seedlings versus clonal stocks.

Yields: In the Hawkes Bay section of New Zealand the average yield of more than 300 growers is well over 800 boxes to the acre. Individual

growers get up to 2000 boxes of apples to the acre. I visited one 11-year-old Golden Delicious block that was packing out 1200 boxes to the acre.

This area is on a broad plain and in sub-irrigated by water from a

People say to Bob Smock, "Would you want to live in New Zealand?" His answer is an emphatic "Sure." Bob spent six months in the Hawkes Bay section of New Zealand on a Fulbright grant studying apple storage problems and visited Australian fruit areas for six weeks.—Ed.

river that feeds into a pumice layer underlying the orchards. Lots of sunshine, good soil, adequate water, and excellent care add up to high yields. A grower can make a good living on 10 acres. In this area level land costs over \$1000 an acre.

Individual high yielding orchards were seen in Australia, especially in Tasmania, but many orchards in Queensland, South Australia, New South Wales, Victoria, and West Australia were on the low side in yield. Even so, their averages compare favorably with ours in eastern United States.

Insect and Disease Problems: Can you imagine no scab or codling moth problem? Such is the case in West Australia. Growers spray for San Jose scale. However, most sections have most of our problems and sometimes more.

New Zealand is plagued with apple virus diseases that are serious. In New Zealand it would not be uncommon to spray apples 10 times. Mealy bug is a real pest of apples and pears. Two species of fruit fly are serious problems in much of Australia. Eradication programs are very active. Concentrate spraying is popular but not universal. The equipment is very modern.

Cultural Problems: It has only been in the past few years that sod culture has become popular in New Zealand. There is still some clean cultivation or cultivation with cover crops. White clover and perennial rye grass are used as sod, and mowing is closer and more frequent than in American orchards. I saw for the first time successful peach orchards growing in permanent sod in New Zealand.

Manganese deficiency is rather common. In the Hawkes Bay area the soil is so fertile there is no response to nitrogen fertilizer. In the Nelson area there exists one of the world's rare cases of real phosphate deficiency for apple trees.

Handling Fruit: There are two main systems. One is to have pickers dump their bags into large trailers that hold 30 to 90 bushels of fruit. These trailers are hauled to the packing house where they are tilted,



One of the storages owned by Apple and Pear Marketing Board that stores and sells all the apples and pears grown in New Zealand, except few sold at retail by growers.

AMERICAN FRUIT GROWER

and the fruit is allowed to flow onto a wide belt that conveys it to the grader. The trailer floors are made slippery to allow flow as a unit mass and to eliminate the normal tumbling of fruit. The use of trailers necessitates that the fruit be put into boxes before it is stored.

The second system is to use bulk bins that hold 15 to 50 bushels of fruit. The bulk bins are distributed in the orchard for the pickers. On hilly ground the bins are left on trailers. Normally, the filled bins



Large trailers are used in New Zealand to haul apples from orchard to packing house. Above photo shows trailer of Delicious being dumped onto conveyor belt in packing house of Archie Wake, of Hastings.

Trailer in orchard of Fred Horrocks (left), of Hastings. Scott Padfield of Fruit Research Station, on right.

would be picked up by a fork life on a tractor and placed on a trailer or hauled directly to the packing house. I saw no fruit stored in bins in New Zealand but a considerable number were used for storage in Australia.

Most of the people with whom I talked were convinced that bulk bins resulted in less bruising than handling into boxes.

Storage: All of the New Zealand storages owned by the Apple and Pear Marketing Board are modern and well designed. Palletized operations and provisions for very rapid precooling were standard. Their machine rooms put ours to shame. Brightly painted, spotless, carefully-nursed machinery graced these machine rooms. Never did I smell any leaking ammonia.

In Australia I saw a wide range in quality of storages, from excellent to poor. Most Australian coolers have coils on the ceiling, with some having fans to blow air across the coils. There is no commercial controlled atmosphere storage in New Zealand and only four installations in Australia.

Sales: The Apple and Pear Marketing Board in New Zealand might be called a "compulsory co-op." Every grower must deliver his fruit to the Board, although he can sell to individual customer an amount not to exceed two bushels per customer. When a grower delivers his packed or loose apples and pears to the board, they are checked by government inspectors as to variety, grade, and size.

The grower gets a guaranteed production price shortly after delivery. This price is guaranteed by the government, but so far the government has not had to subsidize it. The board, which stores and sells the fruit, is made up of two growers, two government representatives, and one representative of the public.

After the selling season is over the grower receives his share of the selling profits based on the variety, grade, and size of fruit he delivered. About half of the 3-million-bushel apple crop is exported, and it is the export market (England and the Continent) that brings the real profits. The board offers fruit for sale on the domestic market at a price it determines. It can even dictate what markup a retailer can charge. At present the board is not doing any box packing but does package loose fruit into poly bags.

I talked to a large number of growers about their attitude toward the board. The general consensus was well stated by one grower, "We never had it so good." However, they wanted more of the profits in their own pockets and less in board reserves.

One of the unfortunate aspects of the system seemed to be the disinterest of the grower in his fruit once he delivered it to the board.

In Australia the 12-million-bushel apple crop (most of which is produced in Tasmania) is sold in every way imaginable, both domestically and in export. There are some large successful co-ops but many indi-

vidual growers store and sell on their own. There is an export board in Australia that pro-rates shipping so that foreign markets are not glutted.

Other Organizations: The New Zealand Fruit Growers Federation is a true co-operative that blankets all the fruit growing areas. It sells orchard supplies, operates a nursery of certified stock, publishes an excellent journal, sponsors competitions, and acts as a good sounding board for members. At meetings the members voice their criticisms of the Apple and Pear Marketing Board and pass resolutions ad infinitum.

General: The pace is slower in New Zealand than in American fruit growing areas. Take a grower who has 10 acres of apples and pears, for example. He picks his fruit over a four-and-a-half to five-month picking season with three or four hired pickers. Mechanization has taken most of the back work out of handling the fruit, except for picking. The grower doesn't worry about storing or selling. He might prune all his trees himself. With a 15,000-box crop at a net profit of even 75 cents per box or more, he lives as well as most successful New York growers. I dare say proportionally more New Zealand fruit growers have taken trips abroad than American growers.

Research is at a very high level in New Zealand. The Fruit Research Station and its branches are not only right on top of the latest findings abroad but make new discoveries of their own. Fruit research also is at a high level in Australia. The best work in the world in progress on fruit physiology is doubtless in Australia. There is an active extension service in both countries, but liaison between research and extension is not as good as it might be. THE END.



Growers can help in developing consumer market for cherries by supervising harvesting so that good grade of fruit is delivered to processors, thus insuring high quality product.

What 'Great Lakes' Means to Cherry Growers

Co-operative is leading the way in helping improve the cherry industry and the profits received by producers

By **RONALD H. MARTIN**
Rochester, N.Y.

"GREAT LAKES" is a tart cherry growers' organization dedicated to the goal of improving profits to those who produce and market cherries. It operates on the principle that to improve profits, growers and the rest of the industry must work together to increase the consumption of cherries.

Great Lakes Cherry Producer's Marketing Co-operative, Inc., as it is formally known, is a voluntary, non-profit co-operative organization, operating under the Capper-Volstead Act, and is owned and controlled by its more than 1600 members in Michigan, New York, Wisconsin, Pennsylvania, and Ohio. As such, it represents the largest and most influential block of tonnage in the United States. It has, as one of its chief aims each season, the goal of establishing a realistic cash price for tart cherries that will be a uniform price throughout the entire cherry-producing area.

Establishing a uniform price for cherries is of considerable value to all phases of the cherry industry except the speculators. It is of primary importance to growers because traditionally their returns are what is left after others have deducted their expenses and profits. Processors, in

The author is assistant manager of Great Lakes Cherry Producers Marketing Co-operative, Inc. Berkley I. Freeman, Grand Rapids, Mich., is secretary-manager.—Ed.

their efforts to gain advantage over competitors, have tried to hold down their prices to growers.

With assurance that their competitors must pay the same as they do for cherries, processors can concentrate on building their profits by doing a more efficient job of processing and a better job of selling. With the high degree of speculation reduced, they can invest some of their profits in research for new products, something very few have been able to do in the past. New products will help to in-

crease consumption, which in turn helps to increase profits. Profit in today's market is made not on high prices but on a reasonable margin of profit with large volume.

Surprising as it may seem in this age of supermarkets, the consumer market for tart cherries has been practically untouched. Compared with competing products such as peaches, apples, and pears, the consumer has little opportunity to buy cherries in a form that will induce her to buy more.

The most common cherry product available to Mrs. Consumer is a small can of cherries packed in water, a product that does little, if anything, to encourage repeat purchases. Water-packed cherries themselves are not nearly as good a product as either frozen or syrup-packed cherries, and coupled with a size container that does not hold enough cherries to bake a decent size pie, it's "murder," as the younger generation would say. Such a product does murder sales!

What is needed is a greater emphasis on the part of the cherry industry (Continued on page 38)



"Our Eaton 2-Speed Axle gives us a speed for every need"

reports apple-grower R. A. Hockensmith, Shenandoah Junction, West Virginia

"It's the versatility of the Eaton 2-Speed Axle that saves us time, money and trouble," says Mr. Hockensmith. "Whether our Eaton-equipped International truck is working in the orchard . . . or hauling over the highway . . . we have the right speed for every need.

"To protect our apple crop, we must spray our trees regularly—make sure the spray goes on each tree in the right amount

and hits every spot, particularly where the fruit grows thickest. Only an Eaton 2-Speed can give us the slow, even speeds required. In low-low gear, the truck just inches along without frogging or bucking.

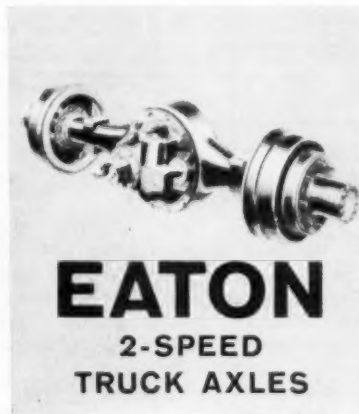
"During the harvest, our Eaton 2-Speed is indispensable. With the Eaton low-gear range, we pull full loads through soft or muddy areas without stalling—no delays, no wasted time."



Mr. Hockensmith reports: "Making deliveries over the road with the Eaton 2-Speed high-gear range, the truck with a full load moves along at top legal speeds, yet engine RPM is low. A tankful of gasoline lasts longer. Trips take considerably less time. Experience has convinced me that the only axle for farming is an Eaton 2-Speed."



International truck dealer John Goode, President, Goode Brothers, Inc., Charles Town, W. Va., has been selling Eaton-equipped trucks for more than 20 years. He says, "This rough, hilly country makes an Eaton 2-Speed a must for farm trucks. Frankly, I don't have to sell Eaton Axles; my customers demand them."



Whatever you farm, wherever you farm, you'll find an Eaton 2-Speed Axle helps you do more work at lower cost. Ask your dealer for a demonstration.

MORE THAN 2 MILLION EATON AXLES IN TRUCKS TODAY



EATON MANUFACTURING COMPANY
CLEVELAND, OHIO

State News

NEW MEXICO

New Apple Council

PRESIDENT of the newly formed New Mexico Apple Council, an organization to promote the apple industry, is W. G. Shrecengost, Hondo. Organization of the Council which comprises about 150 apple growers from nine counties was completed during the recent annual meeting of New Mexico fruit growers at State College, N. M.

Other officers of the organization are Ernest Alary, Sandoval, vice-president, and W. A. Wunsch, State College, secretary-treasurer.

The organization will initiate surveys on the number of trees and different varieties of apples grown in the state; collect and release data on apple production estimates; prepare apple displays for county and state fairs; provide growers with production and marketing information; and develop an overall promotional and advertising program for New Mexico apples.

SMALL FRUIT RESEARCH CENTER



A federal Small Fruit Research Center, serving Illinois and adjacent states, has been activated at Southern Illinois University with Dr. Roland C. Blake appointed as supervisor.

Research will revolve around breeding, production, and disease control problems for strawberries, blueberries, brambles, and other small fruits.

In outlining some of the center's early plans to a group of Centralia area farmers and strawberry growers, Blake said that work on strawberries would begin with nearly 3000 hybrid seedling plants from USDA's research station in Beltsville, Md.

Performance, fruiting characteristics and susceptibility to disease will be noted for each of the seedlings and selections will be made for further breeding and testing.

Blake comes to Carbondale from Medford, Ore., where he was a fruit researcher in the fruit and nut tree section of USDA Southern Oregon Experiment Station.

OHIO

Peach Damage Heavy

PEACHES have suffered the heaviest damage since 1945 in this state. The extent of the bud damage, according to Extension Horticulturist Eldon Banta, indicates some possible crop reduction in most parts of the state.

A survey was made in January through county extension agents in key fruit-producing counties and by personal reports of peach growers. Information received indicated various degrees of bud killing in all parts of the state.

Heaviest killing apparently took place in central and southwestern

counties. Some growers reported nearly all buds killed. Eastern and northeastern counties reported considerable killing. Southeastern counties reported some extensive bud damage while others indicated considerably less killing, especially along the Ohio river.

The Lake Erie region, largest peach-producing area in the state, had only slight damage since the orchards are within the climatic influence of the lake.

OREGON

Best Orchardist Chosen

A CROWD of over 350 Hood River residents turned out in March to honor Bob Nunamaker who was named 1958 "Orchardist of the Year."

Nunamaker's award was the high point of the annual "Orchardist of the Year" banquet sponsored by the Hood River Chamber of Commerce.

The award winner has been an orchardist practically all his life. He attended Oregon State College, then began orcharding among the filbert and prune plantings near Vancouver. Now back in Oregon, he has mostly apple plantings on his 80-acre ranch but in recent years has added a young pear block.

MICHIGAN

Not Just a Fad

WHEN over 300 fruit growers from eight states and Canada get together to hear the latest information on dwarf fruit trees, then it can be assumed that dwarf fruit tree growing is not just a backyard fad but a commercial enterprise. This opinion seemed to be shared by growers attending the recent second annual meeting of Dwarf Fruit Tree Association at Wallace Heuser's Hilltop Orchards, Hartford.

The all-day program included as guest speaker Prof. Karl Brase, New York State Agricultural Experiment Station, Geneva. He pointed out to growers the importance of knowing that they are getting good rootstocks and the kind they want when ordering from a nursery.

For heavy soil with slow drainage, for example, he recommended East Malling VII, and for lighter, well-drained soil, he suggested EM II. He also stated that the rootstock should be long enough (15 inches) so that the roots can be planted deep to prevent uprooting of the tree.

Ideas on growing dwarf fruit trees



Wallace Heuser, of Hilltop Orchards, Hartford, Mich., demonstrates how he prunes dwarf trees.

were presented by a grower panel, moderated by Ray Klackle, Belding, Mich., fruit grower and former Purdue University horticulturist.

The hedge-row system of growing apples as practiced in other parts of the world offers some possibilities in this country as well, remarked Dr. H. B. Tukey, head of the horticulture department of Michigan State University and associate editor of *AMERICAN FRUIT GROWER*. The EM II rootstock, Dr. Tukey pointed out, makes a slightly larger tree than EM VII and is better suited to weak varieties than EM VII. EM IX, the true dwarf, will probably be used mainly by backyard growers.

Wallace Heuser was re-named president of the association. Ray Klackle was chosen vice-president, and Dr. Robert Carlson, Michigan State University, East Lansing, secretary-treasurer.—Leonard J. Hill, Lawton, Mich.

CALIFORNIA

Navel Growers Strike Bonanza

CALIFORNIA'S navel orange industry is suddenly enjoying one of its best years in history.

In the central California area, the preliminary estimate of 17,500 cars made in October for the navel orange harvest was changed to 20,000 cars by March. A similar development took place in southern California where the original estimate of 9500 cars was increased to 13,000.

It is theorized that the poor harvest of last year is responsible for this year's bonanza. The trees had a season to rest and as a result are bearing above-normal quality and quantities of fruit this year.

Appointment of members and alternate members of the Advisory Board for the Production of Fresh Bartlett Pears has been announced

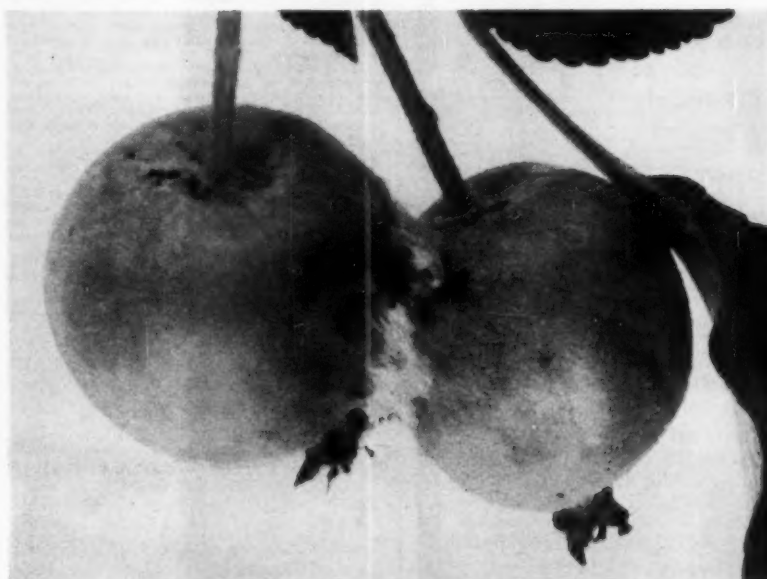
Are you ready for resistant insects?

If you've got 'em, are you using the right chemical?
If you haven't, would you know what to do if they come?

DDT-resistant codling moth is now widespread; DDD-resistant red-banded leaf roller is a more recent development, but continues to spread rapidly. If neither of these resistant pests has raided your orchard, you're lucky... but if either turns up in your orchard this year, would you know what to do?

Where pests have developed resistance, growers have been quick to switch to a powerful phosphate insecticide... like malathion. Malathion-based schedules, from petal fall through cover sprays, give consistently fast, thorough kills when either insect strikes.

In addition to controlling resistant insects, malathion also controls aphids and other summer pests. Many upstate New York apple growers (an area where resistant red-banded is a serious problem) are using malathion-DDD combinations (of course, with the addition of a fungicide when



Webbing of first brood Red-banded leaf roller. Malathion plus DDD will control both broods of this pest. Photos: Courtesy N. Y. State Agr. Exp. Station

needed) as the backbone of their entire schedule.

Offers safety in use

Unlike some of the other phosphates, malathion has low toxicity to man and animals and can be handled safely without cumbersome protective clothing or respirator. The USDA calls malathion, "...one of the safest insecticides to handle."

Eliminates late-season residue problem

Again, unlike some of the other phosphates, malathion can be used close to harvest without exceeding residue tolerances. On apples, cherries, and plums, malathion can be used up to

72 hours from harvest. On peaches and apricots up to 7 days. On pears up to 1 day.

Send for free Grower's Handbook; lists malathion's uses, rates, timings, etc. Write: American Cyanamid Company, Agricultural Division, Dept. AF-5, New York 20, New York.



Though DDT-resistant codling moth is now widespread, it's easily controlled with malathion.



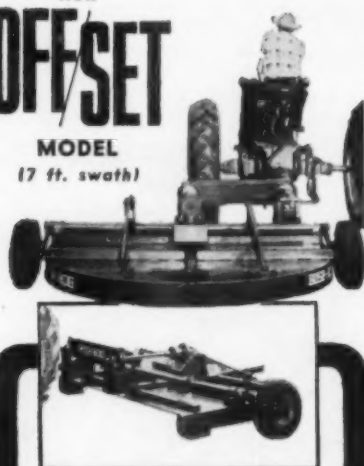
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New
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MODEL

(17 ft. swath)



- Mulches Prunings where they fall!
- Eliminates Brush disposal problems!
- Saves Time, Saves Labor, Saves Money!

This BUSH HOG Offset model permits easy tree circling. Cuts and mulches brush and prunings in one easy, quick operation. Turns waste cuttings into soil improving litter which helps retain moisture around trees. Works fast and efficiently — reduces labor needed at pruning time — saves money in labor and fertilizer costs.

Includes famous BUSH HOG features—one piece arc-welded wrap-around steel frame which retains all litter until completely mulched . . . famous "free - swinging blades" hold position by centrifugal force and fold back to strike again at hard to cut objects.

Easily converts to conventional cutter — by removing offset belt drive. BUSH HOG cutter can be connected to direct power drive shaft for pasture mowing, brush disposal and land cleaning jobs.

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For full details and name of your nearest BUSH HOG Dealer

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Selma, Alabama

Name _____ Dept. 3
Address _____
City _____ State _____

by the State Department of Agriculture.

The order authorizes promotion and advertising of California Bartlett pears throughout the U. S.

"Ozonized" strawberries are about to make their appearance!

Installation of equipment for "ozonized" strawberries was completed in March at the Morrie H. Morgan Company plant in Anaheim. Manufacturers claim this will retard mold growth and extend shelf life of the berries from 48 to 72 hours.

The electronically controlled process kills all mold fungi brought in from the field by treating the berries

CITRUS OUTLOOK FOR 1958-59

Supplies of fresh oranges and frozen orange concentrate are expected to be much larger, and prices somewhat lower this spring and summer than in this same period of 1958. More fresh grapefruit at lower prices are also in prospect for this spring.

The 1958-59 orange crop, including tangerines, is estimated at 127 million boxes, 14% above last year and 3% above average. Compared with last year, Florida, California, Texas, and Louisiana have more oranges, while Arizona has a smaller crop.

Production of tangerines is estimated to be 4.5 million boxes, more than twice as large as last year, but 5% below the average.

This year's grapefruit crop is forecast at 43.5 million boxes, 9% above last year, 3% below the average. Florida and Texas are expected to produce more than last year while California and Arizona expect fewer grapefruit.

California's lemon crop should be about 16.5 million boxes, only 2% less than last year, but 24% above the average.

with pure oxygen, in which mold fungi cannot live, and there is no harmful effect on the berries.

SOUTH CAROLINA

Peach Growers Want Controls

A PLEA for a marketing agreement for peaches was made by South Carolina Agricultural Marketing Commission at its March meeting.

It marks a step in the direction of controlling shipments to terminal markets of uninspected, off-grade fruit at all times, and restriction of small sizes and low quality output during periods of impending gluts.

NATIONAL PEACH COUNCIL SECRETARY

Robert Eower Rogers has been selected secretary of Illinois Fruit Council and National Peach Council. He replaces Harold J. Hartley, who recently resigned to accept a position with American Farm Bureau Federation.

Rogers was employed for several years in sales and public relations and at the present time is working toward a master's degree in agricultural economics and marketing at Southern Illinois University.

The office of National Peach Council will remain at 302 W. Walnut St., Carbondale, Ill.

WISCONSIN

Growers Elect

ELECTION of officers of Wisconsin Berry and Vegetable Growers Association for 1959 took place at the recent regional berry growers meeting held at Waukesha. New officers are: Gerald Hipp, Janesville, president; Harry Barlament, Green Bay, first vice-president; C. F. Greiling, Green Bay, second vice-president; Gerald Fieldhouse, Dodgeville, secretary-treasurer.

FLORIDA

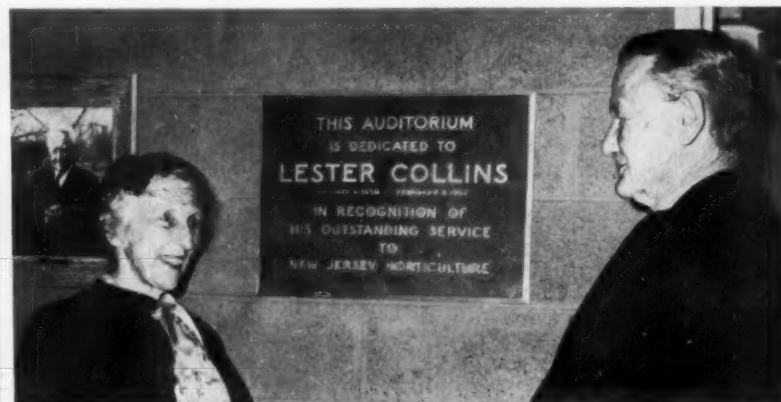
London Gets Florida Grapefruit

JAMES SAMSON, treasurer-comptroller of Florida Citrus Exchange, represented the exchange in London when Britain's first large order of Florida grapefruit arrived April 1. On that day Britain's relaxed grapefruit import regulations went into effect.

John T. Lesley, general manager of the exchange, said that exchange houses in the Indian River area along with Deerfield Groves Company and Nevins Fruit Company have co-operated to make grapefruit available for an export auction experiment that has already proved successful in its initial phases.

Under the auction plan, Florida grapefruit is now appearing at auction in Rotterdam, Antwerp, Hamburg, and London.

The Florida Citrus Commission
(Continued on page 40)



RUTGERS HONORS LESTER COLLINS

Mrs. Lester Collins and Dr. William H. Martin, dean of the College of Agriculture and director of the Experiment Station, Rutgers University, after Mrs. Collins had unveiled the memorial plaque in the new Lester Collins Auditorium. Collins, whose picture appears above Mrs. Collins', was honored posthumously for his outstanding contributions to New Jersey agriculture.



State REPORTS

WESTERN EDITION

Gooseberries in Oregon

OREGON has been a leader for many years in the production of berries of various kinds. While gooseberries have not been at the top of the small fruits list, the acreage has led the nation for some time. Latest survey figures show about 1000 acres planted and over 800 acres in production in Oregon. Only nine other states have any gooseberries, the largest planting being in Michigan where 56 acres are under cultivation.

Normally, gooseberries and currants are thought of together because their production is influenced by the same factors. Both do best on the same kind of soil. They are produced in much the same way and are affected by the same diseases and insects.

At least four factors limit the production of currants and gooseberries: hot summers, a shortage of summer moisture, the white pine blister rust, and the currant maggot.

Both crops are native to cool, moist areas. They produce fruit in late spring and new growth during summer. Hot, dry weather reduces size of both fruit and foliage and may bring about an unhealthy condition in the plant. Where rainfall is limited, growth and production will be less.

The black currant is the alternate host to the white pine blister rust. While the blister rust is seldom serious on cultivated red currants and gooseberries, the plants can become affected and for this reason should be watched carefully.

The currant and gooseberry maggot of the fruit fly will probably always be a menace in their production.

Both currants and gooseberries respond to liberal applications of fertilizer even though the soil is quite fertile. Manures applied in late winter or early spring are beneficial. Nitrogen gives the most pronounced

results but phosphate and potash are helpful in the production of healthy plants and good quality fruits.

Propagation is usually by use of cuttings, although mound layerage is also used. Cuttings of the last season's growth, 8 to 12 inches long, are made in winter or early spring. They are set quite deep in nursery soil to in-

duce heavy rooting, and are ready for field planting at the end of the second year. Plants are set 4 to 6 feet apart in rows 6 to 10 feet apart.

Spraying the soil with diuron (Karmex DW) at the rate of 2 pounds of 80% formulation in 30 or more gallons of water per acre is quite common for weed control. It is

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Bob Thompson, United Farms Manager, plants more cling peach June-buds in the 20,000-tree orchard near Livingston, California

Bill Morine's United Farms enjoys a discount on prebud orders from Stribling's. You can, too. Let us grow your next year's June-bud requirements to specification.

You'll not only save 10% on all pre-bud contracts, but you'll be assured of getting our top quali-

ty, custom-grown stock in the varieties and rootstock of your choice.

We bud any contract order for peaches, plums, almonds or nectarines on S-37*, Lovell or Marianna 2624 rootstock.

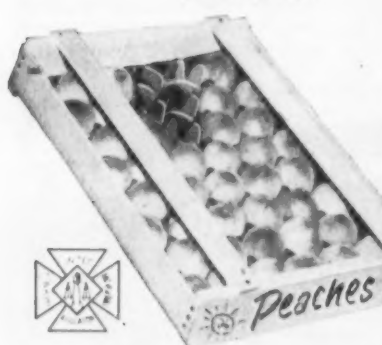
May we send you our Free Descriptive Bulletin and Commercial Price List, so you can order by May 31st, when our discount offer ends?

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used in October or November and again in April or May.

Early cultivation to cover dead leaves is a good disease control. Pruning to open the bushes for better air circulation is also helpful. Recommended sprays for disease control are Bordeaux 8-8-100 or ferbam 2 pounds per 100 gallons of water just after the fruit sets on.

The variety range is not great in Oregon. Perfection and Fay's Profile currants are most popular, and Oregon Champion is the main commercial variety of gooseberry.—R. Ralph Clark, Oregon State College, Corvallis.

"U-Pick" Method Profits Cherry Valley Growers

CHERRY growers who want maximum profits can get more money by selling at retail—have the customers pick the cherries themselves!

This method of selling cherries is being used with great success by



Buckets, pails, ladders—Jess Thayer has them all available for his U-Pick customers to use.

some 35 or more growers at Cherry Valley and Beaumont, California.

"I get more profit by selling cherries on a 'U-Pick' basis," states typical grower, Jess Thayer. "Before using this method, I shipped from 50 to 70 lugs a day. Now all cherries are sold direct to people who pick them."

The publicity man of Cherry Growers Association takes care of the problem of getting people to the cherry area. This is not difficult as city folks are eager for a day in the country picking cherries.

During the height of the ripening season, Jess Thayer will have up to 400 pickers on a week-end. Thayer, as do all the growers, loans picking containers and 10- to 18-foot ladders.

He has 46 such ladders, all of which are in use at the same time on a busy day.

The fruit is weighed and paid for at the gate as the pickers leave the orchard.

"I have many repeat customers," says Thayer. "Many also show up of their own accord, but others are there because of my advertising. I get their names and addresses and then about a month before the season, I drop them a post card. This method of advertising has proved highly successful. It is the only advertising I've ever done, and I've been here 14 years."

Cherry selling is big business in the area. By co-operative effort the growers have successfully sold the public on doing the work of picking the cherries. When the grower did the picking, he had high overhead.

Then came the problem of selling and this was a *real* problem. Local demand was small; shipping to Los Angeles, 75 miles away, was costly, and often many of the lugs spoiled before being sold.

With the "U-Pick" method, all of these problems are eliminated.

Growers in other sections can do the same thing. Co-operation and publicity are needed, and it is necessary to make the pickers feel welcome. Create the impression that it's fun—which it *really* is to the city folks!—Alan W. Farrant.

Fig Pollination

OF the five varieties of figs grown commercially in California, only the Calimyrna requires caprification (pollination) for fruitfulness. The Adriatic, Kadota, Mission, and Turkey varieties produce fruits parthenocarpically without pollination or fertilization.

Caprification requires the presence of male or caprifig trees and fig wasps. Caprifigs are the only figs that produce pollen, and the only type in which the fig wasp can complete its life cycle. Although they have no commercial value, three or four caprifig trees must be provided for each 100 Calimyrna trees.

Merely providing the caprifig tree is not sufficient, however. It is necessary to transfer the caprifigs to the trees that are to be pollinated, thus modifying the normal cycle of the fig wasp. When the fig wasps emerge from the caprifigs, they are dusted with pollen from the staminate flowers near the opening. The pollen-dusted fig wasps then enter the Calimyrna figs instead of other caprifigs and unwittingly accomplish pollination.—W. H. Griggs, University of California, Davis.

AMERICAN FRUIT GROWER

ORCHARD® BRAND Cover Sprays

Cover Every Pest Problem!



for red-banded
leaf roller

Orchard® Brand
TDE,
LEAD ARSENATE



for codling moth,
many other
major insects

GENITOX® DDT
LEAD ARSENATE



for curculio

Orchard Brand DIELDRIN,
PARATHION,
LEAD ARSENATE



for mites

Orchard Brand
OVEX, TEPP,
PARATHION,
MALATHION



for aphids

Orchard Brand PARATHION,
MALATHION, TEPP



for scab

PHYGON WETTABLE POWDER
MICRO-DRITOMIC® SULFUR
FERBAM WETTABLE POWDER



Whatever your pest problem, whatever your spray program—see your Orchard Brand dealer. He offers a complete line of insecticides and fungicides specially formulated to give you maximum spraying efficiency . . . uniform coverage . . . high insect kill

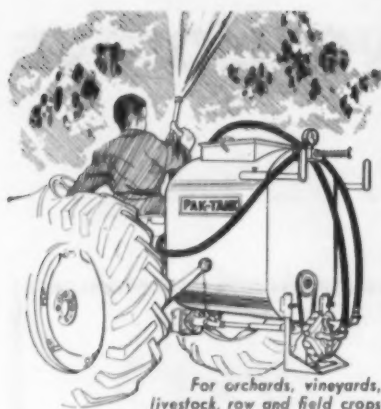
Your Orchard Brand dealer has the *right* product for *every* pest problem. See him soon!

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For orchards, vineyards, livestock, row and field crops

PAK-TANK SPRAYER

\$375

f.o.b. your distributor
Complete with four barrel piston pump

The best costs less! Big 100-gallon tank with mechanical agitation to keep heaviest spray suspended. Delivers 10 gallons per minute at 500 pounds of pressure.

For vegetable spraying, an outstanding assortment of attachments for Pak-Tank or Pul-Tank

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Excellent for Karmex and other abrasive chemicals. Heavy steel, 200-gal. tank with 15-in. top opening with tight lid. P.T.O. or engine-drive. Mechanical agitation; telescoping axle and draw-bar, automotive spindles and wheels, drop-in suction hose and strainer. Special booms available for row crops, cane berries, grapes. 12 g.p.m., 500 p.s.i., 4-piston pump.

tree planting—fencing

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Or write directly to

REAR'S FARM SERVICE

755 River Ave.

Eugene, Ore.

Marketing

How to Win Customers

IN SUPERMARKETS a quality package of apples may well influence an impulse purchase of apples when the customer had no particular fruit, or even a fruit of any sort, on her shopping list. It may win over an intended preference for another fruit, and it may pre-sell apples for the customer's next trip to the store.

A display which is attractively built for eye appeal and convenient purchasing, with a choice of at least two or three varieties, proper identification, and varietal-use suggestions, will sell a lot of apples. Such aids as point-of-sale material, educational aids to better handling, and incentives to bring out the creative merchandising ideas of alert produce men, are promotion dollars well invested.

Look about you. Few industries expect their products to maintain and expand markets without concerted and continuing merchandising, promotion, advertising, and publicity.

Are apples any different? Of course not, except that they have some natural attributes of color, flavor, health values, and variety appeal which other food industries would give their eye-teeth to possess. Too often we expect these advantages to do the whole job without any additional effort on our part.

Very often the difference between successful and unsuccessful business is nothing more nor less than "on-the-toes" application of promotion, advertising, merchandising, and publicity—salesmanship, if you will.

What can be done to influence potential customers *before* they get to the supermarket? With publicity, promotion, and advertising, there is no end to what creative thinking can come up with. Good advertising and publicity is *news*. It is education.

Every day each of us purchases things and services because we read something, see or hear something to remind us that we need or want them. A make of auto? Yes, you say. A certain camera? A brand of clothing? Yes, you say. But not apples!

Why, then, do you buy an apple? Why not buy some other fruit? A candy bar? Why do you make the choices you make?

Advertising has the definite advantage of saying what you want to say, when you want to say it, to those you want to reach.

Publicity is a less direct means of selling. It has this definite advantage: "You said it—I didn't!" It has a ring of sincerity that advertising creates the impression *not* to have done, just

because it is advertising. We need both.

One basic factor we fail to appreciate is that fewer people "live just down the road a piece" from an apple orchard. They know little about apples. All of which provides the need and the opportunity to tell them about apples. And telling is selling, if it is done right.

It must be emphatically remembered that all we do to pre-sell the

At the annual meeting of New York State Horticultural Society held in Syracuse, Fred P. Corey, executive secretary of Western New York Apple Growers Association, Inc., gave a talk entitled *How to Win Customers and Favorably Influence Markets with Promotion Dollars*. Excerpts from his speech are presented here for those in the industry who were not privileged to hear his talk.—Ed.

potential customer can be undone if the product she has been told to expect and convinced to purchase does not exist.

How do we win customers and influence markets? Produce and market a quality product consistently. Shoot for standardization at this level. Process and market quality products consistently. Package and merchandise attractively. Provide what is wanted. Keep flexible to change. Tell people about apples. Educate them as to their values.

Promote, advertise, publicize, merchandise—all of these far more than any of us has done to date. It isn't a grower job only. It involves all of us concerned with the welfare of the apple industry. But *you the grower* are the only one you can really count on.

To those who have persisted and accomplished considerable in this work—as individuals and through organizations such as Western New York Apple Growers Association, other state and regional grower organizations, National Apple Institute, and International Apple Association—all of the industry owes you a great deal.

To those of you who have not—as Dad used to say back home in the woodlot when I was on the other end of the crosscut saw, "If you're going to ride, for heaven's sake, at least pick up your feet!" And far more important than just eliminating the drag, if you are sincerely interested in the apple industry, then let's all work as a team.

If not, you'll do the apple industry a great service to get out, so that the rest can survive and have the profitable industry essential to building an ever better industry and participating in the wonderful way of life and standard of living of the American people, to which standard the grower is its most essential contributor.—Fred P. Corey, Rochester, N.Y.

AMERICAN FRUIT GROWER

CALENDAR OF COMING MEETINGS & EXHIBITS

May 19-20—Apple Merchandising Committee annual meeting, Camden, Mo.—W. R. Martin, Jr., Sec'y, Missouri State Hort. Society, U. of Missouri, Columbia.

May 20-22—(tentative)—Oregon-Washington-California Pear Bureau annual meeting, Multnomah Hotel, Portland, Ore.—R. A. Patterson, Mgr., 602 Woodlark Bldg., Portland 5, Ore.

June 10—7th Annual Illinois Summer Orchard Day, Carbondale, Ill.

June 12-13—Edible Nut Tree conference, University of California, Davis.

June 14-17—Processed Apples Institute, Inc., Whiteface Inn, Lake Placid, N. Y.

June 17-20—National Apple Institute annual meeting, Whiteface Inn, Lake Placid, N. Y.—Truman Nold, Exec. Sec'y, 938 Washington Bldg., Washington 5, D. C.

June 18—Small Fruits Day, Ohio Agriculture Experiment Station, Wooster.

June 24—Connecticut Pomological Society and New York and New England Apple Institute joint meeting, University of Connecticut, Storrs.—Brainerd T. Peck, Sec'y, Lakeside, Conn.

July 7-9—10th Annual Fertilizer Conference of Pacific Northwest, Winthrop Hotel, Tacoma, Wash.

July 20-22—International Apple Association, Inc., 66th annual convention, Olympic Hotel, Seattle, Wash.—Fred W. Burrows, Exec. Vice-Pres., 1302 18th St., N. W., Washington, D. C.

July 30—Orchard and Field Crops Day, Mahoning County Experiment Farm, Canfield, O.

Aug. 5—Connecticut Pomological Society meeting, Bishop Orchards, Cheshire.—Brainerd T. Peck, Sec'y, Lakeside, Conn.

Aug. 17-19—Northern Nut Growers 50th annual meeting, Illinois College, Jacksonville, Ill.—Spencer B. Chase, Sec'y., 2338 Parkview Ave., Knoxville, Tenn.

Sept. 23-25—Florida Fruit and Vegetable Association meeting, Hotel Fontainebleau, Miami Beach.—Joffre C. David, Sec'y-Treas., Orlando.

Oct. 15-24—National Apple Week Association, Inc., fall national apple promotion.—National Apple Week Ass'n, Inc., 1302 18th St., N. W., Washington 6, D. C.

Oct. 21-23—National Agricultural Chemicals Association 26th annual meeting, French Lick-Sheraton Hotel, French Lick, Ind.—Lea S. Hitchner, Exec.-Sec'y, 1145 19th St., N. W., Washington 6, D. C.

Nov. 23-24—Illinois State Horticultural Society annual convention, Abraham Lincoln Hotel, Springfield.—Harold J. Hartley, Sec'y, Carbondale.

Dec. 7-10—Vegetable Growers Association of America annual convention, Dennis and Shelburne Hotels, Atlantic City, N. J.—Mrs. Mary Hays, Acting Exec. Sec'y, 528 Mills Bldg., 17th St. and Pennsylvania Ave., N. W., Washington 6, D. C.

FRUIT VARIETY CLEARING HOUSE

THE American Pomological Society, granddaddy of all fruit organizations in the United States, has much to offer commercial fruit growers in the way of valuable information.

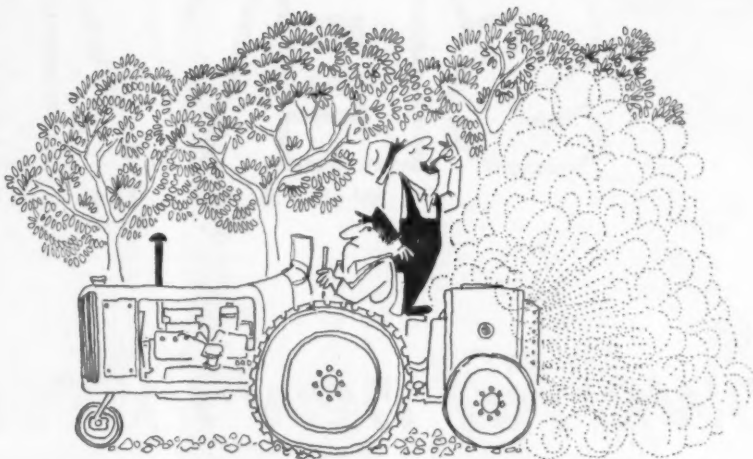
The APS puts its greatest efforts into problems of fruit varieties. Besides promoting the breeding and testing of approved varieties, it is a clearing house for variety information.

APS members receive the organization's quarterly publication, *Fruit Varieties and Horticultural Digest*, which contains notes on varieties, their qualities and weaknesses, and how to get best yields.

Questions on varieties also will be answered by leading fruit breeders.

Commercial fruit growers may become APS members by sending the \$3 membership fee to George Kessler, American Pomological Society, Department of Horticulture, Michigan State University, East Lansing, Mich.

SPRAY UP TO THE EVE OF HARVEST!



USE ACTISPRAY FOR CHERRY LEAF-SPOT PROTECTION BEFORE, DURING AND AFTER CROPPING PERIOD **ACTISPRAY***

Applied four days before harvest, ACTISPRAY gives modern antibiotic control of leaf-spot throughout picking, on both sweet and sour cherries.

- Leaves no visible residue
- Economical—one tablet to 100 gallons of water makes enough 1 ppm solution for 25 trees
- Recommended for nursery stock and nonbearing trees

ACTISPRAY Tablets come in convenient package of 24 (2 tubes of 12).

Ask your supplier today for ACTISPRAY.

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SEVIN

INSECTICIDE

powerful new insect killer

SEVIN is big news for fruit growers! A product of years of UNION CARBIDE research, acclaimed as a major achievement in insect control, SEVIN offers you a superior combination of advantages. SEVIN is deadly to major fruit insects (including resistant insects) yet SEVIN is easy to use with safety. Tests indicate it's less toxic than DDT.

SEVIN is a new and distinctively different carbamate insecticide, unlike the phosphates, chlorinated hydrocarbons, arsenicals, and other commonly-used insect killers. With SEVIN, you can produce more clean fruit with simple, easy, one-product control of many important insect pests.

In tests conducted by hundreds of leading growers and many leading experiment stations, SEVIN wettable powder has produced outstanding results. It is a highly-effective insecticide with long-lasting residual effect. SEVIN can be used very close to harvest on most crops. Fruit finish is excellent with SEVIN.

SEVIN insecticide is compatible with miticides, fungicides and other commonly-used spray materials except lime and other highly alkaline materials. SEVIN is the different, new, easy-to-use insecticide everybody has been waiting for. Don't let bugs bother you . . . SOCK 'EM with SEVIN!

Union Carbide Chemicals Company

Division of Union Carbide Corporation • 30 East 42nd Street • New York 17, New York



SOCK 'EM WITH SEVIN

INSECTICIDE

for APPLES

SEVIN simplifies your spray program for apples and pears by powerful, one-product control of resistant and non-resistant insects. Use SEVIN this year to control—

CODLING MOTH
APPLE MAGGOT
GREEN APPLE APHID
RED-BANDED LEAF ROLLER

FRUIT TREE LEAF ROLLER
PLUM CURCULIO
PERIODICAL CICADA
ROSY APPLE APHID

for PEACHES

Insect Control without a residue problem makes SEVIN the preferred new insecticide for peaches. Use SEVIN from petal fall until harvest to control—

ORIENTAL FRUIT MOTH
PEACH TWIG BORER
PERIODICAL CICADA

CAT-FACING INSECTS
PLUM CURCULIO

Get SEVIN Now!

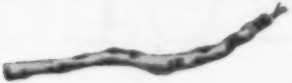



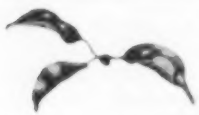

SEVIN is the most important new development in insecticides in many years. It will pay you to get all the facts about the many advantages of SEVIN when you plan your insect control program for 1959. Ask the man who supplies you with your sprays and dusts. SEVIN has everything you have always wanted in an insecticide. SEVIN provides control of major fruit insect pests, including many resistant to other pesticides. SEVIN provides a high degree of safety in handling and use, even close to harvest. SEVIN has long-lasting residual effect and is compatible with most other spray materials except lime and alkalis. SEVIN is easy on foliage and fruit, so you get fine finish. Don't worry about insects . . . SOCK 'EM with SEVIN!

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"Union Carbide" are
trade marks of
Union Carbide Corporation.



SPRAY GUIDE

FOR CONTROLLING APPLE POWDERY MILDEW

WHAT TO LOOK FOR:	WHAT TO DO:
 <i>Infected dormant terminal.</i>	Watch for infected terminals . . . a sure sign that powdery mildew has overwintered in buds and on twigs, and will become active when buds break. Start application of KARATHANE in the pre-pink period.
 <i>Mildewed blossom at advanced pink stage.</i>	Mildewed blossoms at advanced pink stage mean trouble ahead. Start or continue KARATHANE applications at regular intervals.
 <i>Mildew-stunted blossom at full bloom.</i>	KARATHANE WD is harmless to blossoms, as well as buds, fruit and foliage when used as directed. Apply KARATHANE WD every 7 to 14 days.
 <i>Mildew-injured young fruit and spur foliage.</i>	Continue KARATHANE applications until terminal growth is completed to prevent overwintering infections in new buds. Don't take a chance on fruit or foliage injury with sulfur applications. And KARATHANE is compatible with most pesticides.
 <i>Secondary spread by "summer" spores.</i>	During the early summer, this type of diffuse spotted infection may appear on foliage. Keep it under control by spraying with KARATHANE. Your dealer or Rohm & Haas fieldman can recommend an efficient spray schedule.
 <i>Severely mildewed terminals and foliage resulting from uncontrolled primary and secondary infection.</i>	This type of foliage damage and overwintering of mildew can be prevented only by continuing KARATHANE applications through the period of terminal growth. Since mildew fungi are "waxy" and hard to wet, include an efficient spreader-sticker, such as TRITON B-1956 in your sprays.

Powdery mildew is staging a comeback in many areas. KARATHANE WD is the first organic fungicide to really control this fungus disease without harming the crop, the blossoms or the foliage. When properly used, it is safe for the spray operator and for the consumer. Apple growers and nurserymen are urged to contact their Rohm & Haas fieldman . . . or write direct for complete information on KARATHANE WD—the most effective way to stop powdery mildew and boost yields.



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KARATHANE WD

THE QUESTION BOX

Don't be perplexed! Send us your questions—no matter how big or small. A 4-cent stamp will bring you an early reply. Address: The Question Box, AMERICAN FRUIT GROWER, Willoughby, Ohio.

CHEMICAL RESISTANT PAINT

I have been informed that there is a product on the market for painting spray tanks that is chemical resistant. Do you know what preparation this is and where it can be purchased?—Missouri.

Recent tests by Dow Chemical Co. show that two paints are outstanding in their resistance to agricultural chemicals. One is No. 560 Latex Penkote made by Peninsula Chemical Co., Van Dyke, Mich., and the other is Petrolux made by A. S. Harrison & Co., South Norwalk, Conn.

APPLE SYRUP

I understand that apple syrup can be made from concentrated apple cider and sugar. Can you send me a formula?—Pennsylvania.

Suggested procedures for making apple syrup may be obtained from: Department of Horticulture, Pennsylvania State University, University Park, Pa.

BERRY BUSH PEST CONTROL

I grow blackberries and raspberries and would like to know the latest recommended pest control measures that I should follow for best results.—New Jersey.

A new chart listing chemicals, dosages, and other useful pest control information for New Jersey blackberry, blueberry, and raspberry growers is being offered by the extension service of Rutgers University College of Agriculture. This newly revised set of recommendations also gives the permitted interval between last application of pesticides and harvest. A copy is available free from your county agricultural agent.

WHERE CAN I BUY TREES

Of Wellington and Puritan apples?—Ohio.

From New York State Fruit Testing Cooperative Association, Inc., Geneva, N. Y.

Of Sun-Glo apricot?—California.

From C & O Nursery, Wenatchee, Wash.

Of Laycock pear?—Iowa.

From David A. Lawyer, Plains, Mont.

FROZEN CHERRY JUICE

Where can I buy frozen Montmorency cherry juice?—Colorado.

From Northeast Packing Corp., 61 East St., Northeast, Pa.; Seneca Grape Juice Corp., 74 Seneca St., Dundee, N. Y.; Sodus Food, Inc., Middle Rd., Sodus, N. Y.; Sodus Fruit Farm, Inc., Box 1, Sodus, N. Y.; and Wayne Packing Co., Sodus, N. Y.

PECAN BULLETIN

Where can I obtain information on growing and selling pecans?—South Carolina.

Contact your county agent or write to Clemson Agricultural College, Clemson, S.C., for Ext. Cir. 301, *Pecan Production and Marketing in South Carolina*.

CANADIAN FRUIT MAGAZINE

Could you please tell me the address of the magazine called *Canadian Fruitgrower*.—Alaska.

Scott Publishing Co., Box 610, Niagara-on-the-Lake, Ontario, Canada.

AMERICAN FRUIT GROWER

See your
Dodge dealer

DASHING '59 DODGE

MOST STYLE

And this Dodge SWEPTLINE'S bright new beauty has its practical side. That smart, smooth sweep from headlight to taillight makes possible more load space—the most in the low-price field!



MOST VALUE

The new Dodge SWEPTLINE is the truck that gives you the most of everything: Easy ride... extra load space... flashing power. Test-drive it soon! Test Dodge prices, too—they're often the lowest prices!



MOST PERFORMANCE

Up to 205 hp. (check that against other pick-ups in the low-price field) puts the zip in this eager V-8. Or choose the famous, dependable Dodge Six. Of course, both give full power on regular gas.



It's the truck with the most

TODAY IT'S REAL SMART TO CHOOSE
DODGE TRUCKS

control most insects on most fruit crops with

DIAZINON® INSECTICIDE

Control even "problem" insects with DIAZINON insecticide. One broad spectrum effective insecticide does the job of several—gives you more value and better control for your insecticide dollar. Check the control chart on the opposite page. See how DIAZINON insecticide can help solve your particular crop protection problem.

Other Geigy Agricultural Chemicals for your Orchard

CHLOROBENZILATE® SAFE EFFECTIVE MITICIDE

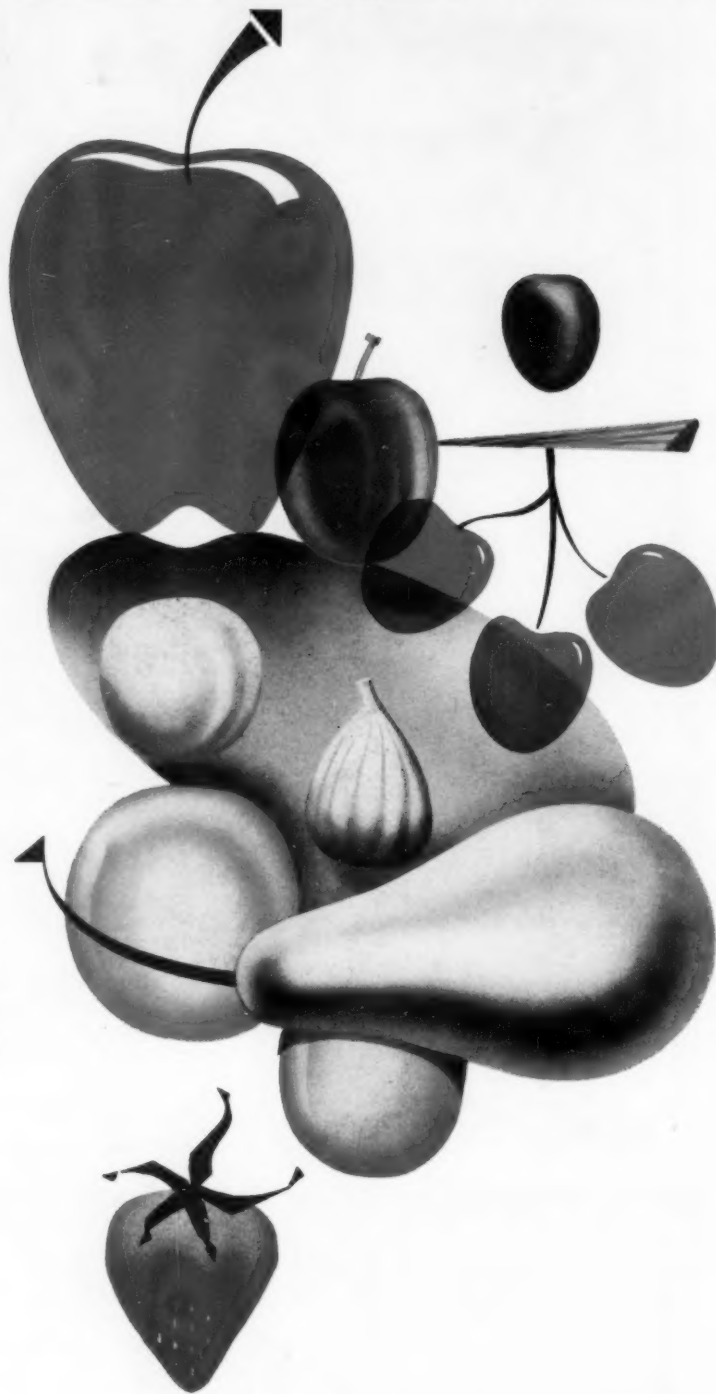
Long residual action. Controls phosphate resistant mites. Low cost. Non irritating.

Geigy **METHOXYCHLOR** INSECTICIDE

Controls many insects attacking fruits. Widely used for control of plum curculio, codling moths and others. Residual. Safe.

SEQUESTRENE® METAL CHELATES

SEQUESTRENE chelates are available for correction of iron, zinc or manganese deficiency in fruit trees. May be applied as soil treatments or as foliage sprays.



DIAZINON[®]

INSECTICIDE



check chart for insect control

CROP	INSECT	PRODUCT	DOSAGE (per acre)	INTERVAL (last spray to harvest)
✓ APPLES PEARS	Codling moths Apple maggots Rosy apple aphids Green apple aphids Woolly apple aphids San Jose scale crawlers Forbes scale crawlers Pear psylla Mites	DIAZINON 25W	2 lbs.	14 days
✓ CHERRIES	Black cherry aphids Cherry fruit flies San Jose scale crawlers	DIAZINON 25W DIAZINON 25E	2 lbs. 1 qt.	10 days
✓ PEACHES APRICOTS NECTARINES	Aphids Clover mites Two-spotted mites Olive scale crawlers San Jose scale crawlers	DIAZINON 25W DIAZINON 25E	2 lbs. 1 qt.	20 days (Peaches) 10 days (Apricots) 10 days (Nectarines)
✓ STRAWBERRIES	Aphids Cyclamen mites Two-spotted mites	DIAZINON 25W DIAZINON 25E	2 lbs. (cyclamen mites—4 lbs.) 1 qt. (cyclamen mites—2 qts.)	5 days
✓ PLUMS PRUNES	Clover mites European red mites Leaf curl plum aphids Mealy plum aphids Thistle aphids	DIAZINON 25W DIAZINON 25E	1-2 lbs. 1-2 pts.	10 days
✓ FIGS	Vinegar flies (<i>Drosophila</i> sp.) Dried fruit beetles	DIAZINON 25W	2 lbs.	10 days
✓ OLIVES	Olive scale	DIAZINON 25W DIAZINON 25E	1½-2 lbs. 1½-2 pts.	75 days
✓ ORANGES LEMONS	Citrus aphids Fruit tree leaf rollers Cottony cushion scale crawlers Soft scale crawlers	DIAZINON 25W DIAZINON 25E	1-2 lbs. 1-2 pts.	21 days

ORIGINATORS OF DDT INSECTICIDES

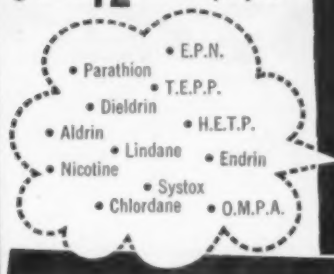


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M-S-A® FARM SPRAY RESPIRATOR



Safe, comfortable protection
against **12** toxic sprays:

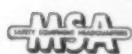


This dependable respirator makes outdoor spray programs safer. New type filters keep users on the safe side of toxic sprays. Replaceable with in-use M-S-A Farm Spray Respirators. M-S-A Respirators are accepted by U.S. Government Interdepartmental Committee on Pest Control.

M-S-A GMC-1 INDUSTRIAL GAS MASK—For heavier mixing concentrations of all the above organic insecticides. "All-Vision" facepiece gives full facial protection, maximum vision.

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Apples

Eliminate Those Weeds!

APPLE orchards in Missouri are grown under sod culture with Kentucky bluegrass as the dominant grass species. To encourage vigorous tree growth in the newly-planted orchard, competition from sod grasses and weeds is reduced by the cultivation of an area around each tree.

After the tree begins to bear, this practice is discontinued and weed control is accomplished by mowing; however, a number of plant pests thrive beneath the limb spread of the mature tree where mowing is difficult. The weeds compete with the tree for nutrients and water, create nuisances and health hazards for the pickers, and provide cover for trunk and/or root girdling mice.

Cultivation around the young tree has been simplified somewhat today by specially-designed tree cultivators which do a thorough and economical job.

For several years herbicides have been tested for use around young trees to eliminate or supplement cultivation. Where erosion is a serious problem, cultivation is undesirable, and a combination of a light mulch and a herbicide is very desirable.

A herbicide with long residual properties is preferred so that only one application will give satisfactory weed control for the season.

CET (Simazine: Geigy) at 4 pounds per acre, diuron (Karmex DW: DuPont) at 2 to 4 pounds per acre, and CIPC (Chloro IPC: Columbia-Southern and Niagara) at 10 pounds per acre have given promising results. These chemicals at these rates are primarily seed toxicants and must be applied ahead of weed germination in the spring. An area 6 to 8 feet square around each tree is sprayed.

Poison ivy and horse nettle are two of the more common and troublesome pests that thrive beneath the limb spread of bearing trees. Poison ivy and many annual and perennial weeds can be controlled by repeated applications of the amine salt or low volatile ester formulations of 2,4-D at the rate of 1½ pounds per acre or a wetting spray at 1500 ppm (.15%).

Brambles, elm, oak, hickory, and many other woody species are resistant to 2,4-D but can be controlled by 2,4,5-T or mixtures of 2,4-D and 2,4,5-T.

With proper precautions salts or low volatile esters of 2,4-D and 2,4,5-T can be used in the orchard safely; however, with highly volatile

esters and excessive spray drift considerable injury can result.

Ammonium sulfamate (Ammate: DuPont) has been effective on poison ivy and somewhat effective on perennial weeds and grasses when applied as a wetting spray using 1 to 1½ pounds per gallon of water. Wetting agents usually give improved coverage and kill. Ammate is non-volatile but highly corrosive.

Dalapon (Dowpon: Dow) gives effective control of grass beneath bearing trees when used at 10 to 15 pounds per acre. Trees less than four years old appear susceptible to injury by this treatment.

Some growers are interested in controlling all vegetation beneath the bearing tree to lessen the possibility of mouse damage. For the control of



Luxuriant growth of poison ivy and horse nettle killed by amino triazole which was applied in July. Photograph was taken in early September.

all vegetation, amino triazole (American Cyanamid and Amchem Products, Inc.) at 4 to 8 pounds per acre has shown considerable promise, as has a wetting spray of Karmex (2 pounds per 100 gallons of water applied at 20 pounds per acre).

Amino triazole has been particularly effective in killing poison ivy. This chemical also has given better kill of horse nettle than any other weed killer tested.

Apple trees are extremely sensitive to polychlorbenzoic acids. The apple roots absorb this chemical and severe distortion of the new foliage results. Benzac and Trysben are trade names for weed killer formulations containing polychlorbenzoic acids. They are manufactured by Amchem Products, Inc. and Du Pont, respectively.

Today, with several effective herbicides available, there is no need to tolerate plant pests such as poison ivy, horse nettle, and the like, beneath the limb spread of apple trees. You also may want to consider the possible use of herbicides in your newly planted orchard. Young apple orchards of Missouri Agricultural Experiment Station are now being

sprayed annually as a routine practice.

Lessening the possibility of mouse damage by keeping an area around each tree trunk free of vegetation may have merit—consider it!—*Delbert D. Hemphill, University of Missouri, Columbia.*

Pears

Gravest Danger

THE California Canning Pear Association, with headquarters in San Francisco, recently completed six years of pricing canning pears for its membership which comprises about 60% of the canning pear tonnage of the state. The following excerpts from the annual address of the association's president, Ruel Stickney, are of paramount importance to growers of fruits of all kinds, both fresh and processed.

● **The most important progress** we have made in our canner relations is to prove over a six-year period that we as an association and the canners as our customers can live together and understand and respect each other's problems. The only area of real disagreement is price, which has always been the case between buyer and seller. We have demonstrated that we can and will perform under our cannery contract which some canners originally told us couldn't be done.

● **If anyone believes** pear decline in the Northwest offers a solution to possible future surpluses, he can forget it. Yakima, the worst area affected, shows a percentage reduction in mature bearing trees 20 years and over from 1954 to 1958 of 14.2%, an increase on young bearing trees 10 to 19 years of 1.2%, and an increase of new planting 1 to 9 years of 13%. Current appraisal of the situation shows overall production in Washington and Oregon should remain fairly level with new production offsetting the trees being pulled. California's 35,600 acres are increasing because of new acreages being planted.

The need for an association and increased bargaining strength becomes increasingly important. We must continue to find new uses for pears such as the recent upward trend of juices and concentrates and, to those of you who might be interested, pear vodka is being manufactured in the Northwest. We must continue to keep and capture our share of the market by maintaining our advertising and promotion program as carried on by the Pacific Coast Canned Pear Service.

● **We should be aware** but not pan-

icky because of new cannery peeling equipment which may result in nearly a 20% increased case yield when the industry is fully converted. Use of the bulk bin by both growers and canners is probably even closer than many realize, especially if early results indicating reduced bruising, lower initial cost, and reduced handling and storage charges are substantiated.

● **The gravest danger** facing California Agriculture today is labor and legislation affecting it. At present we are exempt under the federal minimum wage law. The National Agricultural Workers Union has urged Congress to extend the minimum wage to farm laborers. It also proposes to change the Taft-Hartley law to apply to agriculture. Labor Secretary Mitchell proclaimed: "All agricultural workers should be covered by some sort of minimum wage and maximum hour law." He states a complete appraisal of the entire wage and hour question in agriculture is now underway and will be completed in 1960.

How about our own state legislation? There are now pending a number of State Minimum Wage bills proposing to cover agriculture with minimum wage floors of from \$1.25 to \$1.50 per hour, also bills which would require overtime after 40 hours a week. Governor Brown's labor reform legislation includes Assembly Bill 419 which would cover field agricultural workers and permits and regulates the union organization of any employer with one or more employees.

● **Growers and canners** have mutual problems. For instance, 1959 is the year when the Cannery Workers Union is negotiating with the California Processors and Growers (a bargaining group of all important canners contracting with the Cannery Workers Union except Cal Pack and Libby who are this year negotiating jointly with California Processors and Growers for uniform contract conditions).

This problem of the cannery facing increased costs can affect the ultimate consumer price of pears and tend to nullify some of the efforts we make to increase the use of pears. Union demands already served on the canners include overtime pay for Saturday work, a 10% increase in base rates, a 50% increase in recess periods, increases in premium rates and a broadening of their application, and a multitude of other items having to do largely with liberalized holiday and vacation benefits. A full satisfaction, it is estimated, would increase labor costs over 30% above rates for the past season.

THE END.

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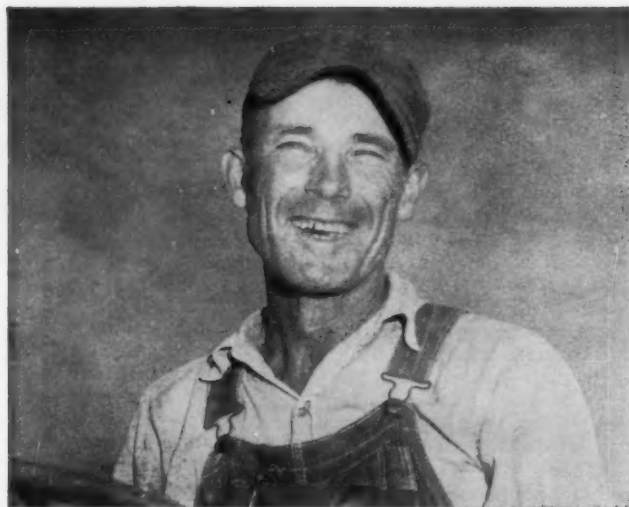
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ORTHOCIDE brings



"Our peaches brought top price and top prize using ORTHOCIDE"

"Last year our Red Havens brought top price and top prize at the shed. The inspector said he hadn't seen cleaner wood or a cleaner crop anywhere in the state," says Dalton Dunn, Manager of the 115 acre Reid Bondurant Orchards, located at Wynne, Arkansas. "I've been handling a spray gun for as long as I can remember and have never used anything that finishes peaches better than ORTHOCIDE. Other materials will tend to check scab and rot but ORTHOCIDE, timed right, cleans out scab and rot completely and sets a stronger, even bud crop."

ORTHOCIDE can bring you top market prices, too!

The outstanding fungicide, ORTHOCIDE, used on growing fruit, has improved color, finish and keeping quality of fruit for leading growers everywhere. ORTHOCIDE (captan) 50 Wettable provides exceptionally fine particle size, better sticking and wetting agents. Ask your ORTHO Fieldman how ORTHOCIDE in an ORTHO program can bring you top market prices, too!

California Spray-Chemical Corp., A subsidiary of California Chemical Co.

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ON ALL CHEMICALS, READ DIRECTIONS AND CAUTIONS BEFORE USE.

top quality, top market prices



"Using ORTHOCIDE on our apples helped increase profits"

"Using the ORTHO-ORTHOCIDE program in our apple orchards has helped increase our profits by helping produce top quality apples," reports grower August R. Nolte of Golden Eagle, Illinois. "We follow the recommendations of our ORTHO Fieldman and certainly have the results to show for it. Our apples are scab-free and have the best finish ever, which we believe was helped by the use of ORTHOCIDE."



"ORTHOCIDE increased production and improved quality"

Kurt H. Roehrs of Clintondale, New York, says: "I believe ORTHOCIDE is the finest fungicide on the market; it has increased production and improved quality of our apples. And ORTHO field service is tops; the fieldmen are highly trained and know our local problems." Mr. Roehrs summarizes: "ORTHO is the most efficient and least expensive of all the apple spray programs I've ever used."



Helping the World Grow Better

Scientifically trained Fieldmen located in all the Nation's leading fruit growing areas.

Portland, Oregon
Sacramento, California
San Jose, California
Fresno, California

Whittier, California
Phoenix, Arizona
Salt Lake City, Utah
Maryland Heights, Missouri

Dallas, Texas
Memphis, Tennessee
Maumee, Ohio
Haddonfield, New Jersey

Columbia, South Carolina
Medina, New York
Orlando, Florida
Springfield, Massachusetts

Berries

Strawberry Runner Cutter

A TEDIOUS and costly job where strawberries are planted in the hill system or in double rows is the cutting of runners. A mechanical strawberry runner cutter, which also

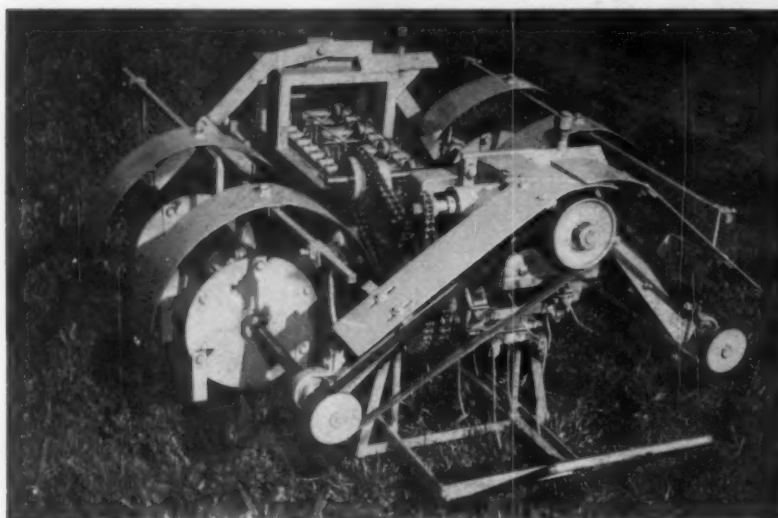
serves as a cultivator, is now available which simplifies this task.

The Runnervator, as the timesaver is called, can be used to cultivate other row crops as well. It is simple to operate. It has a flexible construction which permits its use even in soil containing roots, rocks, and other foreign objects.

Powered by the power take-off of any standard make tractor, the ma-

chine is designed for quick, easy hook-up. The reversible gear box makes operation in either direction possible. Cutting knives are of heat-treated spring steel and are adjustable to permit working single, double, or triple row plantings of various widths.

The machine is made by the Runnervator Co., Forest Grove, Ore.



Runnervator cultivates strawberries and cuts runners. It also cultivates other row crops.

Alaska Lingonberries

LINGONBERRIES from Alaska are reaching the states today because of a challenge to Mrs. Judy McPherson, of Fairbanks.

When Mrs. McPherson, who uses bushels of lingonberries herself, wondered about raising them for export, her husband encouraged her to carry out her ambition. She is now head of her own company, Arctic Alaska Berries. Native women pick the berries which are then packed and shipped to the states.

The lingonberry grows only in the northern lands, such as Alaska and the Scandinavian countries where it is also popular. It is similar to the cranberry, but has more flavor and color.

Mrs. McPherson sends recipes along with her exported berries. The berries may be used for relishes and sauce or in salads, pies, and tarts.—

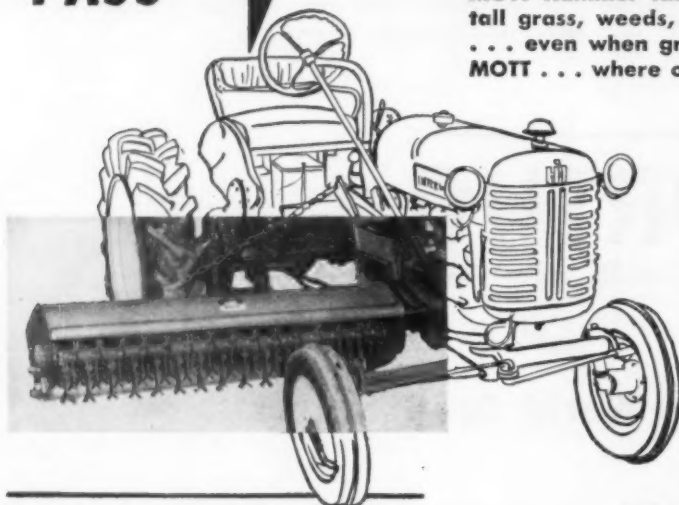
Margilee Watts.

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PASS—**

MOW YOUR ORCHARD

Clean, Neat... In less time... At lower cost!

MOTT Hammer Knife Mowers cut and shred tall grass, weeds, light brush and seedlings... even when ground is wet. Mow with a MOTT... where others cannot!



Shown is 48" MOTT Hammer Knife Mower with off-set underslung tractor mounting. Also available for center and rear-hitch mountings in 4, 5, and 6 ft. cutting widths or self-powered gangs up to 19 ft. For simple, easy lawn care, 18" and 24" (walk behind) models. In all, 25 MOTT models to choose from.

A MOTT Mower wades in and leaves an even carpet of mulched cuttings that holds moisture and conditions the soil with natural humus for greater yields. You can easily mow with a MOTT where others cannot—close-in, around and under trees, regardless of grass height or ground roughness. Durable free-swinging knives can be sharpened in minutes—or replaced at dime store prices. MOTT Hammer-Knife action prevents flying sticks, stones and other debris. MOWERS are rugged, simple in design to give years of trouble-free service. MOTT saves in three ways—in first cost economy... operating economy... and maintenance economy.

For an amazing demonstration of the MOTT Hammer Knife Mower, see your local dealer, today!

Where Others Cannot You Can Mow With

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BROOKFIELD

mott®
HAMMER KNIFE
MOWERS

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ILLINOIS



GLYODIN **pays more ways** FUNGICIDE **in cover sprays!**

You get top quality at low cost when you use Glyodin fungicide in your entire cover spray program. For a cost as low as 56 cents per 100 gallons of spray, Glyodin gives reliable protection from scab and summer diseases. In addition, Glyodin spreads and sticks the whole spray mix over foliage and fruit to give you additional benefits.

When you use Glyodin in cover sprays, you get effective control of

scab, sooty blotch, Brooks spot, bitter rot, black rot and fly speck. Glyodin is excellent with ferbam or Thylate for control of rust, x-spot and other summer diseases. And in such combinations, Glyodin costs you only 37 cents per 100 gallons of cover spray.

Glyodin is an ideal spreader-sticker. It gives smooth, clear, transparent protection without reducing leaf efficiency and without fruit discolora-

tion. Used regularly through the season, Glyodin suppresses mites so well it often saves the cost of special mite sprays.

Yes, easy-mixing liquid Glyodin fungicide stays and pays in cover sprays. No other fungicide offers you its combination of economy plus dependable protection that produces more fine fruit. Order enough CRAG Glyodin now for your entire cover spray program!

SEE YOUR GLYODIN SUPPLIER NOW

Union Carbide Chemicals Company

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"OUR FITCHBURG CHIPPER IS ONE OF THE BEST INVESTMENTS I HAVE EVER MADE..."

says J. W. Hulbert of Nobscott Mountain Orchards, S. Sudbury, Mass.

Like so many orchardists, Mr. Hulbert found that a Fitchburg Chipper quickly paid for itself by reducing prunings to moisture-holding wood chips. Brush hauling is eliminated. Wood chips keep weeds down, give orchards better tilth, better moisture-holding capacity, finer fruit.

FREE CHIPPER FACTS

Get all the facts. Write for free folder. Tells how to increase orchard production at lower costs. Address Dept. AFG-59.



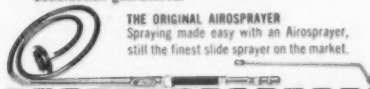
FITCHBURG ENGINEERING CORPORATION
FITCHBURG, MASSACHUSETTS

AMERICA'S MOST USEFUL



- PORTABLE
- NYLON-ROLLER BALL BEARING PUMP
- SPRAYS DIRECT FROM CONTAINER
- YOUR BEST VALUE AT THE BEST PRICE

Save time and money with New Power Airosprayer. Its one-man portability lets you do a quicker spraying job. Ideal for trees, gardens, and cattle. Operates from ground, truck, or any solid base. Satisfaction guaranteed.



THE ORIGINAL AIROSPRAYER
Spraying made easy with an Airosprayer, still the finest slide sprayer on the market.

Attach This Order to Letter or Card with Name and Address

— Send me an Airosprayer (\$8.40 east of Denver, \$8.75 west, p.p.d. or C.O.D. plus charges).

— Send me Power Airosprayer (\$133.95 complete with 1½ h.p. Briggs & Stratton engine, F. O. B. Neodesha, Kansas).

— Send me additional information on Airosprayer—Power Airosprayer— and name of dealer

AIROSPRAYER COMPANY

DEPT. A

NEODESHA, KANSAS

32



By **HENRY BAILEY STEVENS**

The Other Side of The Coin SPRING heals the hurt of the abandoned apple trees.

"Why not relax and enjoy the blossoms, even if they will not mature fruit?" I ask my soul.

Many people have planted flower gardens for no other cause than beauty.

Why not be happy with 10 acres of flower orchard in full bloom?

A Unique Reminder At Mealtime

A. C. ULLRICH, of McHenry, Ill., combines advertising art with beekeeping in a unique way. He prints a table placemat 14 x 9½ inches in red ink on absorbent white paper, with a series of numbered sketches encircling an apiary. The sketches show an apple tree in blossom, a close-up view of a blossom cluster, a honeybee dusting pollen on the blossom, detail showing the downward action of pollen nerve in stigma tube to seed ovary, the un-ripened and ripened fruit, and an apple cut open to reveal ripe seeds.

Boxed-in is a message headed *Nature Works Her Miracles Thru the Honey Bee*, saying in part: "An adventure as old as time, yet as new as the first blossom in spring awaits the gardener who includes the honey bee in his plans. Without her you would have few fruits or vine vegetables and very few mature seeds for next year's garden." He uses as a brand name for his honey "Nature's Reward."

More Orchard Titles

IDEAS for orchard names continue to come in. Mrs. Martha G. Palmer, of Vero Beach, Fla., writes about an experience with a farm near Gaithersburg, Md.

"We were about six months in figuring out an apropos name. The place had not been farmed for 20 years. The pastures were grown up with clusters of blackberry brambles; the hayfield was covered with weeds and wild black cherry trees. Black locusts were starting to take over the bottom land. Behind the house a 5-acre orchard, seven years old, needed pruning and fertilizing.

We loved the place from our first visit, which was at evening after working all day in the city. The moon

was full, and the whippoorwills were vying with one another to see which could repeat the call most rapidly. After we had moved in, we set about tearing up the brambles via brush hook and brawn, and chopping out the slender young locusts. Frequently we would scare up a band of black and yellow goldfinches that went skimming merrily over the orchard grass. From early morning bluebirds would be chirping, often resting on the telephone wires to display orange breasts and blue feathers. A mockingbird would cavort in the orchard, making life miserable for some blue-jay.

Still, the obvious name did not occur out of the umpty-ump suggestions until one night when I awoke from a sound sleep to hear the owls hooting and the whippoorwills calling. Then, as if through an overgrown tangle, came the name of our choice: "Warbling Meadows."

Here is a puzzler from J. N. Borglin, of Wilmington, Del. "After a few years of observation," he writes, "it became quite obvious that the most appropriate name for our farm was 'Medical Acres'. Come down for treatment instead of treat."

Perhaps "Belly Acres" would have been an over-simplification.

The Fruit Grower's Wife

By **Edna C. Laurie**
Hemmingford, Que.

May

My home has lost its peaceful ways,
Noise is everywhere;
Sprayers hiccup, tractors squeal,
Men are here and there.
The guesstimate is a large crop
When I could wish for small.
Large crops mean fancy prices,
Like pride, must take a fall.

June

The men talk shop at every meal,
Crops, spray or type of sky;
The only thing addressed to me
Is "Oh, for apple pie!"
Red mite or plum curculio,
Parathion, Crag,
Borers or the weather—
How their tongues do wag!

July

Day by day the apples size,
Green sauce delights the eye;
Then, sure enough, the size is right
To bake an apple pie.
It's borers, scab, curculio,
It's hail or it is price.
The only thing that's said to me
Is—"Apple pie is nice!"

Melon Sickness

By **Lloyd McLean Roberts**
Wayne, Pa.

When melons are in season I cultivate a phobia;
At other times I suffer a frightful melon-cholia.

Address your "Windfalls" contributions to Henry Bailey Stevens, AMERICAN FRUIT GROWER, Willoughby, Ohio.

AMERICAN FRUIT GROWER



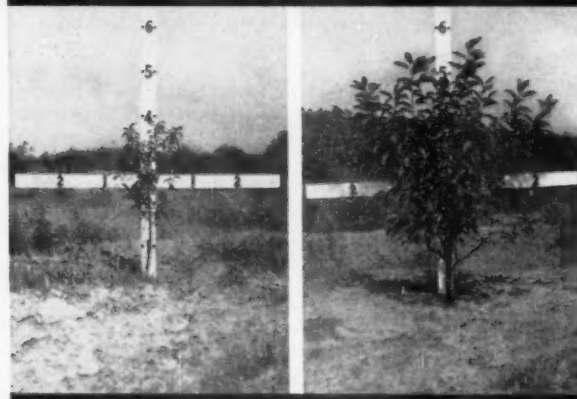
FARM CHEMICALS

3 point profit program for fruit growers



1. Control grass with Dowpon

Unwanted grasses in orchards and vineyards are unprofitable in more ways than one. They compete with fruit for soil nutrients and moisture. They harbor insects and rodent pests. And, in some areas, they prevent proper drainage and irrigation. The easy way to eliminate these annual and perennial grasses is with Dowpon®. Sprayed on the leaves the systemic action of Dowpon does the rest—works *inside* the grass, killing tops and roots. Controls quack, Johnson, Bermuda, para, pigeon, water grass and many others.



2. Control nematodes with Dow soil fumigants

Nematodes are among the most serious economic threats to the fruit grower. They can cut the production of strawberry plants by one half. They can also slow the development of young fruit trees almost to a standstill. And they are reported to cause the devastating "spreading decline" which strikes citrus groves. From Dow, you can get scientifically tailored fumigants for every nematode problem. Before planting a bed, orchard or grove, ask your Dow dealer to help you select the right fumigant to control these costly, crippling soil pests.



3. Prevent and cure iron chlorosis with Versenol products

Top quality and top yields call for plenty of iron. You can keep trees green, vigorously growing and in top production by furnishing available iron in the form of Versenol® F or Versenol FA. Versenol F is the high-strength form of this organic iron source. Versenol FA employs vermiculite as a carrier for easier mixing with dry fertilizers or direct application to the soil. Ask your Dow dealer to show you evidence of the remarkable results you can obtain with these Dow iron chelates.

PROFIT ALL 3 WAYS

SEE YOUR DOW DEALER

Get your information on these and other Dow products. It's your first step toward more profitable fruit growing. See your Dow Farm Chemicals Dealer today . . . or send the coupon for the information you want.

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AGRICULTURAL CHEMICAL SALES DEPT. 114HX-5
MIDLAND, MICHIGAN

Please send me without delay:

Further information on _____ ☐ Please send the name of my Dow dealer

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Address _____

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DRY WEATHER
THE BIRD...**



There are handsome dividends to be earned in providing your own weather for crops and pasture...there's no better way to do this than with Rain Bird Sprinklers. Get water where you want it, when you want it!

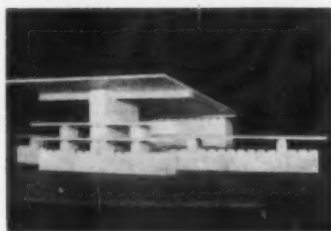
Single installations have more than doubled—even tripled—yields and insured stability of crop income. See your dealer.

Write for free information.



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SALES & ENGINEERING CORP.**
Azusa, California

MULTIPLY YOUR SALES



with the DEL AIRE MODEL 56 fruit stand

The roadside seller for fruit, vegetables, flowers, etc. If you have a good location don't be without this newest model to add profits to your business. Even more attractive at night with its own unique lighting. The only stand of its kind designed for permanent beauty—constructed for lifetime service.

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PREFAB INDUSTRIES

208 South Black—Bozeman, Montana



Merrill Sunrise topped early variety plantings in California last year.

Nectarine's Explosive Rise

RAPID growth and expansion have been the bywords in many businesses since the end of World War II. Violent, explosive growth better describes the "goings on" in the nectarine business.

At present, California nectarine acreage is approximately five times its pre-World War II level. Before Pearl Harbor the five or six varieties which made up the bulk of California's production covered some 2500 acres. Now about 30 varieties cover more than 12,500 acres. About 60% of these have yet to come into bearing and approximately 85% of the acreage has not yet reached full bearing.

Nectarines are almost as well known as peaches, but do not enjoy the same popularity. Two reasons account for this. First, there was a lack of a really good variety; this limited consumption. For many years the Quetta was the only variety growers could depend upon to produce a good crop, one that had eye appeal, quality, and would hold up. Then, until DDT came along, growers had no really effective means of controlling thrips. Scarred fruit simply became culls.

About the time the thrips problem came under control, new, high colored varieties began to be planted. Growers were able to sell and ship any fruit—good or poor quality.

Little was known about the proper maturity and keeping qualities of these newer patented varieties. All that mattered was the high prices which the growers enjoyed. However, some far-sighted growers viewed the situation with alarm. "Uncontrolled shipment without proper maturity and quality will put all of us in the red," was their common thought.

And then came the red ink of 1957. Heavy early shipments failed to bring satisfactory prices, and growers be-

gan to store early varieties. These were shipped with the midseason varieties and neither paid its way. More storage and more red ink was the result. Some fruit was held under refrigeration for as long as 30 days and then dumped.

The winter of 1957-58 saw key leaders in the industry doing a lot of groundwork, and grower meetings for the purpose of explaining market orders were held in the various nectarine growing areas. Although not all growers were in favor of such a program, the majority did favor a federal order. The purpose of the adopted order was to insure size and quality of fruit going to any market.

Nectarines shipped during the 1958 season fell about 1000 cars short of expectations. Cull outs were heavy. In addition, the initial set was light. This combination of factors made for satisfactory returns for the shipments.

Nationwide market distribution is now established.

To those growers who are willing to put quality ahead of quantity, the future of the nectarine business may not be glowing, but it is not bleak.—Norman W. Ross, Stanislaus County Farm Advisor, Modesto, Calif.

Extend Peach Season

NOW growers in Utah can market fresh peaches from mid-July to early October as a result of a station testing program at Horticultural Farm in North Ogden.

Eight varieties of peaches rated as superior include Early East, ripening July 25; Starking Delicious, August 3; Red Haven, August 7; Fair Haven, August 14; July Elberta, August 21; Sunhigh, August 28; Gleason Early Elberta, September 10; Johnson Early Elberta, September 12; Redskin, September 12; and Rio Oso Gem, September 17.

AMERICAN FRUIT GROWER



Either model can twist the tail of the toughest pickup job around

*And there are ten more where they came from.
All Chevrolets. In all pickup sizes, in both Fleetside
and Stepside styles . . . including 4-wheel-drive
models. There isn't a tough farm job going
that one of them can't tame.*

Every one of them is a stickler for staying on the job and never letting you down. The question is which one best suits your needs. Those tough, scrappy Stepside pickups are lowest priced. Fleetsides, with more space, feature a Sunday-best look every day of the week. And both body styles offer 4-wheel drive—for extra traction and for operating special equipment. Your dealer will list all the features and advantages. Look him up next time you're in town. . . . Chevrolet Division of General Motors, Detroit 2, Michigan.

**NO JOB'S TOO TOUGH
FOR A CHEVROLET TRUCK!**



Both the Stepside (above) and the Fleetside feature a fuel-saving new six.



BUCKNER GIVES Best Effective COVERAGE PATTERN



Independent tests under field conditions prove Buckner Rainiers give best effective coverage patterns, plus small droplets of water for slow, positive penetration. From sprinkler to sprayer, Buckner irrigates best.

Plus The Original SANDPROOF BEARING

Buckner's GGG Bearing® is the only bearing with three washers at both top and bottom for a better sandproof seal, self-starting rotation and longer sprinkler life.



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Follow the advice of EXPERIENCED
horticultural experts

Spray easily — Spray Thoroughly. Spray
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HAMILTON SWIVEL GUNS



**HAMILTON QUICK ACTION
SHUTOFF VALVE**

One quarter turn of handle gives full flow.
INEXPENSIVE. Available in $\frac{1}{8}$, $\frac{1}{2}$ and $\frac{3}{4}$ ".

W. L. HAMILTON & CO.
BANGOR, MICH.

Stone Fruits

Cherry Leaf Spot

CHERRY leaf spot fungus usually attacks the leaves, especially the underside of the leaves, although stems and twigs also may become infected.

The life cycle of the organism includes primary spores which are discharged from the previous year's old leaves on the orchard floor following early spring rains or other heavy moisture. This period coincides with early leaf growth. This discharge usually persists until the end of June in the Grand Traverse area of Michigan.

Included also in the life cycle are the secondary spores which are discharged from leaves infected during the current season.

Growers generally divide control materials into two categories: *eradicate* type materials which "burn out" the fungus but are somewhat more caustic to the cherry tree, and *protective* type materials which are milder toward the tree, but by being applied ahead of infection, destroy the fungus before it becomes established.

The former group might include Bordeaux mixture and other copper materials as well as actidione (antibiotic). The latter group includes glyodin, ferbam, captan, nabam, liquid lime sulfur, and others.

A typical spray program for control of leaf spot is that followed by Raymond Alpers, manager of Redpath Orchards, Leelanau County, in northwest Michigan. Alpers sprays 125 acres of Montmorency cherries with air-blast equipment at the rate of 100 gallons per acre of 4x concentration (400 gallons per acre on a dilute basis). The Redpath program includes three complete cover sprays before harvest:

First Cover (petal fall spray when three-fourths of the petals have fallen), using 1 pint glyodin plus $\frac{1}{2}$ pound of ferbam (per 100 gallons on a dilute basis).

Alpers drives his sprayer down every mid-row and each tree is sprayed from both sides. Because it takes him three days to cover his acreage, he begins at one end of the orchard and drives his sprayer down alternate mid-rows, spraying one side of each row of trees until he reaches the opposite end of the block. Then he sprays the opposite mid-rows back until every row has been sprayed from both sides.

Second Cover, using same materials as in first cover. This is a *split* application at the rate of 1 pint glyodin

plus $\frac{1}{2}$ pound ferbam (per 100 gallons on a dilute basis).

Seven days after the completion of the first cover, Alpers drives the sprayer down alternate mid-rows in the orchard, spraying one side of every row of trees. Seven days later, the alternate mid-rows are driven and the opposite side of each tree covered.

Third Cover, using 1 ppm of actidione and 1 pound ferbam (per 100 gallons on a dilute basis).

Seven days after the completion of second cover, the sprayer is driven down alternate mid-rows, spraying one side of each row of trees. Seven days following this procedure, the alternate side of each row of trees is sprayed.

Although this is only three complete covers, material has been applied to each tree five times on seven-day spacing. Part of the success of this program is based upon the fact that air-blast equipment when used in red tart cherry orchards covers more than one-half the tree, even though materials are applied to only one side.

If infection occurs after harvest, an application of 1 ppm actidione (per 100 gallons on a dilute basis) is made to both sides of every tree. In other words, the sprayer is driven down every mid-row. Alpers also states that if wet conditions prevail during a prolonged bloom period before the application of the first cover, he sometimes dusts during this period with dichlorone.

Here are two more or less out-of-the-ordinary conditions:

1) In years of wet conditions during prolonged bloom, it is often advantageous to apply a protective spray while bloom still hangs. Some growers gauge this time of application not by the stage of bloom but by the stage the small green leaves are in at this time. The statement often repeated is that as soon as the small green leaves are the size of a "squirrel's ear," it is time to make application of protective material.

2) Ordinarily, primary spore discharge has been completed by harvesttime and any new infection taking place after this comes only from leaf spot already established on the current season's leaves.

However, some growers have observed new infection of leaves on the bottom of trees following mechanical tree hoeing of soil under these trees after harvest. These growers feel that in stirring the soil they are turning up old leaves which have previously not been exposed and by this procedure additional spores are being discharged.—George A. McManus, Jr., District Marketing Ext. Agent, Traverse City, Mich.

AMERICAN FRUIT GROWER

Moisture for Peaches

A LADINO clover crop blankets the 60-acre peach orchard on the Bray Fruit Farm at Bedford, Ky., and is kept mowed during June, July, and August, for such a cover crop will help size the peach crop during a dry year. In fact, the total moisture collected in the top soil through "condensation" during these three summer months may be equal to 10 inches of rain.

This newer idea of where summer soil moisture comes from was explained to midwestern fruit growers attending the winter meeting of Indiana State Horticultural Society some



Ladino clover cover crop in orchard adds 8 to 10 inches of moisture to soil by condensation.

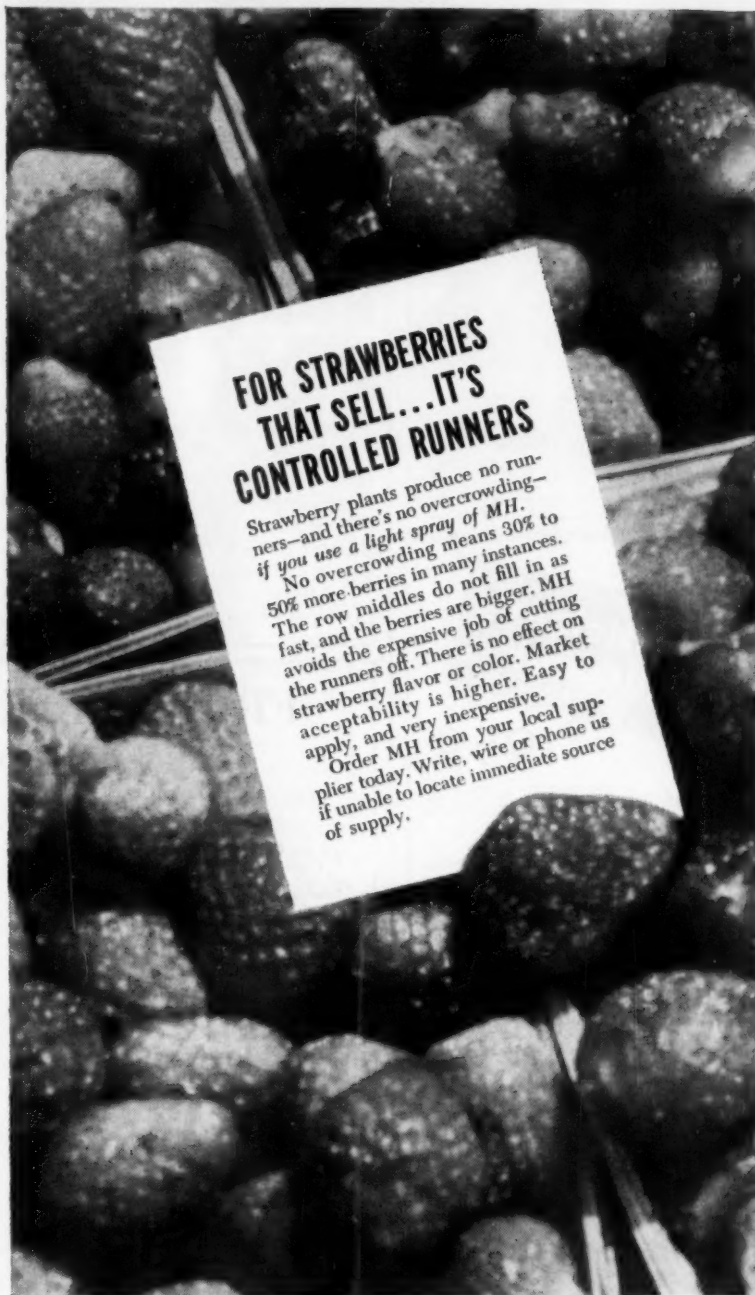
20-odd years ago by Dr. George D. Scarseth, then head of the agronomy department of Purdue University, and now director of American Farm Research Association.

During that lecture, Dr. Scarseth made the statement that no accurate instrument was available by which science could measure the total condensation moisture for any one day or the season. I asked a well-educated Kentucky agronomist at this time his ideas of soil moisture, and he stated that the National Agronomy Association had never been able to prove that Dr. Scarseth was wrong.

In developing the condensation theory, a number of simple examples were used on which the audience of 250 midwestern fruit growers would agree. For example, the glass pitcher of ice water on the speaker's table had droplets on the outside; the metal pipe in the milk cooling room from the deep well has drops of moisture on the outside. As a barefoot farm boy during the hot summer evenings you would walk on the cool, moist grass growing near the highway rather than burn your feet walking on the hot sands.

During this lecture I sat almost spell-bound listening to his statements

MH RUNNER CONTROL



FOR STRAWBERRIES THAT SELL...IT'S CONTROLLED RUNNERS

Strawberry plants produce no runners—and there's no overcrowding—if you use a light spray of MH.

No overcrowding means 30% to 50% more berries in many instances. The row middles do not fill in as fast, and the berries are bigger. MH avoids the expensive job of cutting the runners off. There is no effect on strawberry flavor or color. Market acceptability is higher. Easy to apply, and very inexpensive.

Order MH from your local supplier today. Write, wire or phone us if unable to locate immediate source of supply.



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producers of seed protectants, fungicides, miticides, insecticides, growth retardants, herbicides: Spergon, Phygon, Aramite, Synklor, MH, Alanap, Duraset.

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Finest In Fruit Trees

The news is out!! You have a wide selection in semi dwarf and full dwarf trees of all the latest strains available. Since 1847 we have been furnishing growers with the finest in fruit trees.

Robusta #5 (New Canadian Root Stock) East Malling I, II, VII, and IX Malling Merton 104, 106, 109, and 111.

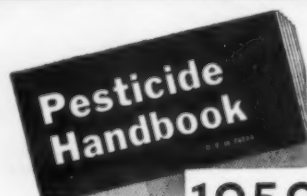
Size	10-29	30 & up
3/4"-1"	3.25	3.00
5/8"-3/4"	2.50	2.25
1/2"-5/8"	2.25	2.00

EM IX & MM 104 add 10c each

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STATE COLLEGE, PENNSYLVANIA

IDEAL HARNESS for CHERRY and BERRY PICKING BUCKETS



\$1.20

EACH POSTPAID

Ideal Harness - for Cherry and Berry Picking Buckets. Adjustable, Medium Weight Working Nickel Plated Snaps and Buckles. Featuring the equalizing loop which compensates for shifting of load.
FRUIT PICKING EQUIPMENT CO. LAWRENCE, MICH.

—most all of them different from what I had been taught about capillary rise of water supplying moisture to the plant roots.

Foremost in my mind was a peach soil moisture demonstration I had conducted at Paducah about 1931. In that area of Kentucky we had no rain from March 1 to August 25. Nitrate of soda that had been broadcast in March just laid on top of the soil and never dissolved.

My soil demonstration on a 10-year-old Elberta peach orchard consisted of seeding down 2 acres of the land on the Spring Hill Orchard to common lespedeza and keeping the balance of the 50-acre commercial orchard clean cultivated to maintain a good dust mulch. All other orchard management was the same.

During the first week in June, July, and August. I personally took soil samples at 9-inch, 18-inch, and 27-inch depths. When the samples were taken (between 6:00 and 7:00 A.M., and the cover crop was always covered with dew) with the soil auger, the soil was dry as road dust at all the levels. The chemical analysis showed in each case that only hygroscopic moisture was present.

At harvesttime in early August, I picked the crop and took the peaches

to a nearby co-op packing house where 90% of the crop on the dust mulch plots graded out under 2 inches, while the cover crop plots graded out 90% of 2 1/4 inches and up in size.

A couple of years later the pomology men of the horticulture departments of Illinois, Ohio, Indiana, and Kentucky had a summer conference at the Michigan Experiment Station and also visited the substation at Grand Rapids. On the Michigan cherry orchard moisture tests they found the per cent of moisture higher where a low growing cover crop was being grown, as compared to their clean cultivated plots. Dr. V. R. Gardner, the horticulture chief at that time, said they could not account for this, so additional soil samples were collected and a duplicate analysis run. This checked with their first analysis. Soil moisture through condensation was never discussed or considered.

A few years ago the Federal Soil Conservation Service of Ohio came out in print saying they had developed methods of measuring the total daily dew accumulation and found that as much as 8 to 10 inches was accumulated during June, July, and August.

We think in terms of keeping the Ladino clover mowed three or four

FRUIT PEST HANDBOOK

(SEVENTY-SECOND OF A SERIES)

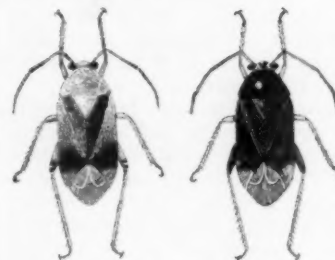
OAK AND HICKORY PLANT BUGS

IN the East and Midwest peaches are sometimes severely injured by several species of oak plant bugs and the hickory plant bug. Bearing orchards which are adjacent to woodlands containing oaks and hickories are particularly susceptible and the injury is usually concentrated in the rows nearest the woodland. Although slight deformities in peaches may be produced as a result of feeding, the typical "scarring and gumming" of the fruit is more frequently observed. Numerous small, scattered scars covering a relatively small area may be indicative of oak and hickory plant bug injury.

The white oak plant bug (*Neolygus querulae*) and the oak plant bug (*Neolygus omnivagus*) have most often been reported as peach pests but other species of oak plant bugs may cause similar damage. The hickory plant bug (*Neolygus caryae*) is quite destructive in some years in the Great Lakes fruit belt. These insects overwinter as eggs on their respective host plants and the nymphs hatch about the time oak and hickory leaves first appear. The nymphs mature in late May or early June and the adults gradually migrate from forest trees to peaches and other food plants.

Control. The first step in control consists in restricting the planting of new orchards to at least 200 yards from woodlands which contain oak or hickory trees. In cases where orchards have been planted in the vicinity of host trees, the oaks and hickories may be removed or sprayed about the middle of May with parathion.

Where such measures are not practical it may be necessary to spray the orchard to achieve successful control. Two or three applications of parathion made at 10-day intervals give good control at these plant bugs. The first application should be made 10 days after shuck-split. Parathion should be used at the rate of 2 pounds of water-soluble powder in 100 gallons of water—Ray W. Rings, Ohio Agricultural Experiment Station.



Adult forms of, left, the oak plant bug and, right, the hickory plant bug.



Typical "scarring and gumming" injury on peach produced by the hickory plant bug.

times during the summer, allowing all clippings to remain on the soil. The orchards—both peach and apple—get added fertility through nitrogen fertilizer and a covering of farm manure at least every other year.

The Brays practice clean cultivation during the first two years after planting a new orchard and intercrop



Four consecutive heavy crops were harvested from 7-year-old tree, 90% picked from ground.

with tobacco, melons, or some truck crop. Then in the spring of the third growing year they seed down to Ladino clover. They have used this cover crop system for the past 15 years.

I first visited the Bray orchard in 1922 and found it to be under practical and successful management. They



This 17-year-old unpruned peach tree produced 16 bushels of No. 1 fruit in last year's pick.

supply their local roadside market, and ship only surplus peaches to northern markets. They say that the first and most important factor in their success is their modern spray program; the second, keeping up the fertility of their orchard area; and third, a careful job of thinning.

Pruning is not so seriously considered as most peach orchard practices. They do no pruning for the first seven to eight years. They have picked four consecutive heavy crops from a seven-year-old unpruned tree, 90% of which was harvested from the ground. From a typical 17-year-old tree an average of 16 bushels of No. 1 fruit was picked in 1958 with 80% being harvested from the ground and

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AMERICAN FRUIT GROWER Willoughby, Ohio

Yes—I agree it's nice to do "good turns" to friends. So please mail a free copy of AMERICAN FRUIT GROWER with my compliments to the persons listed below.

If possible send the May, 1959 issue

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AGF-5

the other 20% by using a 4-foot ladder.

I do not know of any peach orchards in the Ohio Valley that have returned greater profits per acre during the past 30 years than the Bray orchards.—*W. W. Magill, University of Kentucky, Lexington.*

New Prune Harvester

HARVESTING small tree fruit at a rate of 30 to 50 trees an hour is possible with the aid of a self-propelled catcher-conveyor designed by USDA-California state engineers.

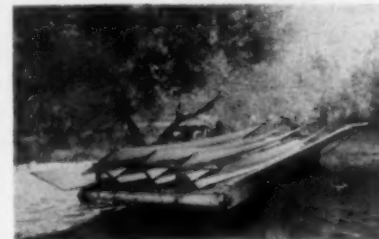
Two of the catcher-conveyors and a tractor-mounted mechanical tree shaker comprise a harvesting unit.

The two catcher-conveyors, placed on either side of a tree and joined together around the trunk, catch fruit that is dislodged by the shaker. This mechanized unit harvests prunes, plums, and cherries with minimum bruising of the fruit. A similar arrangement, with a system of canvas baffles placed over the conveyor, will be used next summer for field trials on peaches and apricots.

Movable canvas-covered flaps of each catcher-conveyor slant toward the canvas conveyor belt. Fruit rolls from the flaps onto the slowly moving conveyor, or falls directly on it. The conveyor forms the bottom of the machine and carries the fruit to boxes at the rear.



Catcher-conveyor speeds small tree fruit harvest.



Canvas baffle arrangement, used to retard fall of olives, is to be tried with apricots, peaches.

Only three men are required to operate the two catcher-conveyors and a tree shaker. Seven or more men are needed to handle old-type fruit-catching frames and the tree shaker.

These catcher-conveyors can be built for about \$2000 a pair and will be available commercially this year. Gould Bros. Mfg. Co., San Jose, Calif., plans to manufacture them.

'GREAT LAKES'

(Continued from page 12)

on the development of desirable consumer products in conjunction with sound promotional and merchandising programs. Growers can best assist in developing this consumer market by:

1) Producing high quality cherries as efficiently as possible to keep cherries competitive in cost with other products.

2) Supervising harvesting so that a good grade of cherries is delivered to processors.

3) Co-operating with and supporting sound promotional programs designed to sell more cherries. If growers wish to grow cherries they must expect to help assume the responsibility of selling them.

4) Co-operating in the effort to establish a uniform price for their cherries which in turn will help stabilize the industry.

And could not processors help increase their profits also by developing more forceful sales programs and placing less reliance on price? Will not the crutch of "cost plus" contracts designed for "built-in" profit be the undoing of the industry as buyers use this weakness to drive prices down

to destructive levels? Is not this a negative approach to a problem that desperately needs positive action?

A guaranteed profit does nothing to encourage more efficient operations, and processors as well as growers must become more efficient if the cherry industry is to successfully compete for its share of the much sought-after consumer dollar.

Retailers, too, can help to sell more cherries. Research data has conclusively shown that the switch to smaller sized consumer cans has drastically reduced the sales of cherries. The modern supermarket bases its entire profit structure on its ability to sell in volume. Is it not paradoxical, then, that they have reduced the size of the can so that they can sell more, but instead are selling less?

Data is now being compiled by Cornell University to determine what size can will sell the most cherries. Those responsible for determining the size of can to be sold should study carefully this data and act accordingly.

Have not bakers, too, been guilty of not doing their share to increase consumption of their cherry products? A common complaint is that too

many cherry pies contain too few cherries and too much filling. Most consumers would be willing to pay what the additional cherries would cost to get pie that is made primarily of cherries.

Could not brokers, also, contribute greatly in increasing consumption of cherries? It is ironical that often we hear growers express concern about overproduction and, at the same time, we hear complaints from consumers in southern states that they cannot purchase cherries in their stores. Are brokers exploring all their outlets, or are they content to compete for the business of the fewer larger customers?

In this modern age a successful job of marketing can be accomplished only by group action. Those who attempt to "go it alone" do so only by "riding on the coat-tails of others." They may not pay their share but, in not doing so, they reduce the ability of the group effort to return greater profits to all.

There can be no question that there is a need for improved marketing practices. The national domestic consumption of red tart cherries has dropped from 1.67 pounds per capita to 1.39 in the postwar years. In

NEW CHERRY PRODUCT

Cherry Growers, Inc., Traverse City, Mich., has opened up a new outlet for red tart cherries with coned Reddi-Mold brand of Jellied Cherry Sauce. The new product can be used in salads, as meat garnish, parfaits, ham glaze, as well as with pancakes, waffles, French toast, and as spread for bread. Glittering gold foil label, by Flexible Packaging Division of Continental Can Co., has played important role in effective promotion of the product.

1956, we had the shortest crop of cherries in seven years but received a relatively low price for it. In the past 13 years prices have fluctuated from \$118 per ton to \$301 per ton in a national average. All of this occurred in the face of increased plantings and increased yields per acre.

Members of Great Lakes are leading the way in assuming their share of responsibility in helping to improve the cherry industry. It is hoped that other growers who wish the cherry industry to grow and prosper will join. GLCPMC also could stand for Growers Liking Consistent Profits Must Co-operate! They must co-operate each year to help establish a realistic cash price at the time of harvest if they wish to make the cherry industry a profitable industry. Only through such co-operation can it be done. THE END.

Located on well-traveled highway? Then you may want to attract the motorist with a good-looking display of fruits. Working drawings for an attractive, easy-to-build roadside stand are available for \$2.00 from AMERICAN FRUIT GROWER, Willoughby, Ohio.

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STATE NEWS

(Continued from page 16)

has moved men and promotion materials into the London area to assist

Distribution of Florida Citrus Mutual's famous grapefruit spoons hit a new record in March of 150,000 spoons sold during a five-day period.

wholesalers and retailers in the movement of Florida grapefruit in that newest foreign market.

CORNELL PLANT PATHOLOGIST RETIRES

Dr. Arthur B. Burrell, noted researcher in plant pathology, retired April 1 from New York State College of Agriculture, Cornell University, Ithaca.



Burrell received his Ph.D. degree in plant pathology from Cornell in 1931. He immediately joined the faculty and was appointed full professor in 1938.

As the only Cornell specialist in the fruit growing area of Peru, N. Y., he had done original research on numerous orchard problems. Among these were studies of fertilization and pollination, bee handling, and mouse injury to trees.

A co-operative apple storage in Peru which Burrell took the lead in organizing, is also a demonstration place for new techniques, primarily that of controlled atmosphere storage.

NEW JERSEY

Fruit Thinning Conference

Fruit thinning of apple and peach trees highlighted discussions during a recent conference at Rutgers University, New Brunswick. Some 130 growers, research workers, fieldmen, and others attended the two-day meeting.

Peach thinning sprays have not been as successful as apple thinning sprays, said Tony Tafuro, Anchem Products, Ambler, Pa. Now under observation, he disclosed, is 3-chloropropionic acid which seems to be doing a satisfactory job and apparently is safer than other chemicals tried so far. The material will not be available this year, but there may be more information about it next year.

Dr. E. F. Savage, head of the horticulture department at Georgia Agricultural Experiment Station, Experiment, said mechanical thinning still finds favor in his state. A test with Chloro IPC at 200 ppm increased fruit set, and applied at 400 ppm, gave a slight reduction.

Mechanical thinning still has real merit, with each grower developing his own system, said Dr. Leon Havis, USDA horticulturist at Beltsville, Md. Chemical thinning of peaches at this stage is a gamble, he felt. He proposed use of thinning sprays in a conservative way, carefully fol-

(Continued on page 45)



J. P. Burkholder, of Geneva, Ohio, controls this post-pounding rig and auger from the platform.

Grapes

New Varieties

TWO new grape varieties, Exotic and Magoon, have been released by USDA for propagation.

Recommended especially for Arizona, **Exotic** is a dark colored, nearly black grape that matures about a week later than Cardinal. Eating quality is good, and the texture is crisp. Shipping quality and market acceptance also are good. Further trials are needed to determine its commercial value in California, report scientists.

Magoon, a muscadine variety, is especially well adapted to the central and southern portions of the Gulf Coast states and Georgia. The early midseason variety ripens around September 7 in the Meridan, Miss., area. The fruit has a dull reddish-purple color, with heavy skin, and fine flavor.

No Tractor Driver

A NOVEL post-pounding rig and auger enable J. P. Burkholder and his son, Harry, of Geneva, Ohio, to remove and replace a post in their vineyard in about one and a half minutes.

A post-pounding platform is mounted on an ordinary two-wheeled farm trailer which can be easily slid on and off the trailer in a few minutes. The control mechanism of the tractor extends to the platform, thus, eliminating the need for a tractor driver. The tractor is operated at an idling speed from the platform.

A rack beneath the platform provides ample space for necessary tools, and new as well as broken posts are carried on the platform.

This drilling unit is driven from the power take-off of the tractor; the reduction unit is a car transmission.

The complete mechanism, with 6-inch-diameter by 3-foot-long auger, weighs about 40 pounds. The drilling device is mounted so that it swings from side to side. Thus, holes can be

TENTH CONSECUTIVE TERM

Douglas M. Moorhead, North East Pa., has been re-elected to his 10th consecutive term as president of National Grape Co-operative Association, Inc. Others re-elected at the recent annual meeting in Westfield, N.Y., include W. R. Stebbins, Sheridan, N.Y., first vice-president; Herbert F. Sill, St. Joseph, Mich., second vice-president; Don A. Cresswell, Pasco, Wash., third vice-president; S. Elwin Keesch, Westfield, N.Y., treasurer; D. R. Gagliano, North East, Pa., secretary; George A. Sloss, Westfield, N.Y., assistant treasurer; and J. D. Riley, Fredonia, N.Y., assistant secretary.

drilled from either side of the platform without changing the course of the tractor.

The Burkholders use 8-foot Penta-treated cedar posts, drilling them in about 30 inches. Rows are 10 feet wide, with vines spaced 8 feet in the row.

The Wily Nematode

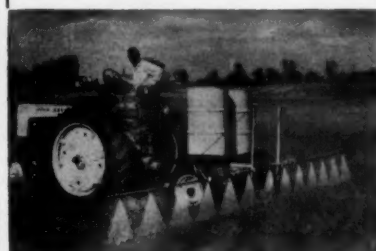
THE nematode, already notorious as a plant parasite, is also a plant virus carrier. USDA-state studies reveal that the dagger nematode, *Xiphinema index*, has transmitted fanleaf virus of grapevine from infected to healthy plants. This important finding makes USDA researchers suspect other similar plant parasitic nematodes.

PLASTIC GREENHOUSE PLANS

Construction details for Cornell University plastic panel greenhouse, names of suppliers of material, films, and adhesives for plastics, and reprints of current articles on plastic greenhouses are available from **AMERICAN FRUIT GROWER**, Willoughby, Ohio, for 50 cents a set.

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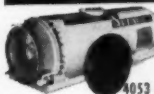
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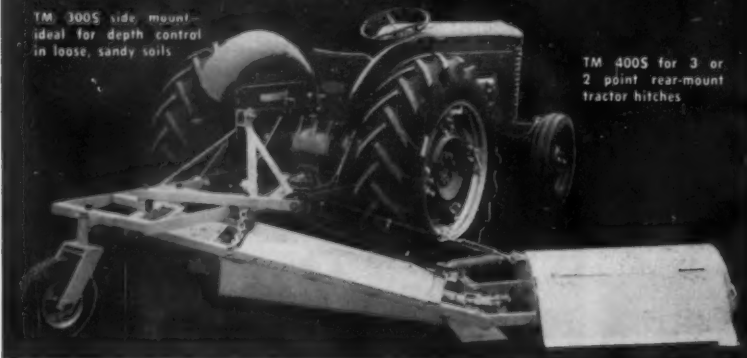


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NEW FOR YOU

Useful and Attractive

Last fall we decided something had to be done to fence in our experimental orchard. After a lot of thought we decided to use a split rail fence which would be attractive and discourage people who were coming into the orchard. The new



fence did the job beautifully. We purchased the fence from the biggest supplier in the country, Wood Products Company, of Toledo, Ohio, and I thought you would like to know about them. Their line of fences is diversified, and it includes standard type posts, rail and stockade or hurdle fence, residential fences of lighter construction, western red cedar and screen-type picket fences. "The post-line is the life-line of a wood fence," says G. A. Jacobs, Sr., founder of the firm. "Years of usefulness are largely numbered by the quality below the ground." Write George Jacobs, Sr., Wood Products Co., Toledo 12, Ohio, for their catalogue and prices. You'll be pleased as we were. Prices are reasonable.

Do it Electrically

A new generator which is operated by the tractor power take-off is now available to growers. The generator hitches



on quickly, and its capacity of 4 KW makes the operation of electric chain saws, welders, and electric pumping equipment possible. The generator has been approved by International Harvester for use on their tractors. Why not write Joe Petit, International Harvester Co., 180 N. Michigan Ave., Chicago 1, Ill., for details.

• Automatic Orchard Hoe

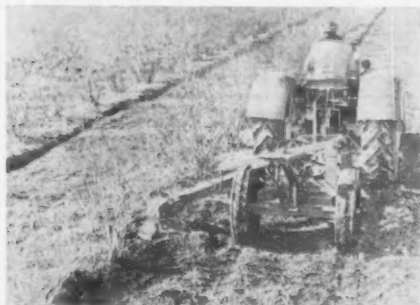
• Split Rail Fence

Strawberry Fungicide

Like many well known chemicals, sodium salt has been found to possess a new and worthwhile use, particularly on berries. USDA has supplied the information that the chemical inhibits the growth and propagation of a wide range of bacteria and fungi. Should you want more information on the chemical, write Aceto Chemical Co., Inc., 40-40 Lawrence St., Flushing 54, N.Y.

Rotary Hoe

Up in Michigan, I saw a new power take-off Automatic Rotary Hoe perform in a young peach orchard. The hoe is more compact, shorter, and has a narrower tread than previous models. The new, heavy-duty Warner gear box rotor



head has more in and out travel distance, which makes for easier, quicker hoeing around trees, bushes, or vines. The new rotor plate turns faster and eliminates wrapping of long grass. This tool made for fruit growers is worth looking into. Write Dave Friday, Friday Tractor Co., Hartford, Mich.

Microbial Insecticide

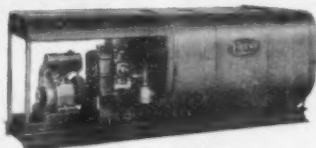
Not a chemical but a living compound, Thuricide will be widely tested by growers this year. This is the first of what may be an entirely new family of living insecticides. The microorganisms in the compound, when eaten by certain insects, kill these pests. Still, the new compound is harmless to humans. It is particularly effective against leaf-eating insects and does not harm bees, parasites, or predators. Thuricide can be applied as a dust or a spray in conventional equipment. Stauffer Chemical Co. in conjunction with Bioform Corp., which developed the compound, are working together and will have available for you a technical bulletin on the new germ insecticide. For details, write Dan Tuite, Stauffer Chemical Co., 380 Madison Ave., N.Y. 17, N.Y.

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Tanks 200-500 gal. cap.;
pumps from 15-50 gpm.
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Tanks 100-600 gal. cap.;
pumps from 6-60 gpm.
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GROW YOUR OWN SAGE FOR BEST sausage, dressing seasoning. Plants; 3 for \$1.00, 8 for \$2.00 PP. Tomato, pepper, sweet potato, cabbage, herb and wildflower plants. Free list. KELLY PLANTS, B-10-K, Looneyville, West Va.

BURPEES "BIG BOY" AND "BIG EARLY" F-1 hybrid tomato plants. No split order on variety. Live delivery guaranteed. 12—\$1.25, 50—\$3.75. Postpaid. State delivery date. FRANCIS W. PETRIE, 411 South Ravenel St., Columbia, South Carolina.

5 POUNDS SWEET CORN \$1.70. 200 HARDY plants \$1.90. BETTER GARDENS, Export, Pa. GIANT MARTHA WASHINGTON ASPARAGUS roots, 2 years old. RUDOLPH SZEWCZYK, No. 3, Paw Paw, Michigan.

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RABBITS

RAISE ANGORA, NEW ZEALAND RABBITS on \$500 month plan. Plenty markets. Free details. WHITE'S RABBITRY, Delaware, Ohio.

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FOOD MACHINERY CORP. APPLE cleaner. Model 18-5H or 18-9H preferred. KENNETH HAYFORD, Route 1, Adrian, Mich.

SMALL USED PEACH BRUSHER IN GOOD condition without grader. E. M. BARBER, Lyn-Mar Hills, Morristown, Tenn.

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The skilled hand of the German gunsmith is responsible for this .22 caliber, 6-shot repeater automatic with self-ejecting clip. Just 4" long, fits easily into pocket or purse. Ideal for sporting events, stage use. (not available to Calif. residents). Comes for \$6.95 ppd. from Best Values, Dept. K-109, 403 Market, Newark, New Jersey.

MAY, 1959

STATE NEWS

(Continued from page 40)

lowing extension service recommendations, and then only in part of the orchard.

Dr. A. E. Mitchell, Michigan State University, noted the frequently inconsistent results with chemical thinners; he blamed this on hit-or-miss methods.

BLUEBERRY STANDARDS ESTABLISHED

Tentative standards for New Jersey cultivated blueberries have been approved by the State Board of Agriculture. They will provide the basis for an official inspection and certification program which will be supervised by the New Jersey Department of Agriculture.

The session on apple thinning was more encouraging, although some speakers called for more research.

Dr. Frank Southwick, Massachusetts State College, noted that the development stage of naphthaleneacetic acid and naphthaleneacetamid has passed, but he said much more needs to be known about how they work.

Dr. Arthur H. Thompson, fruit specialist at University of Maryland, told the group there was no reason for apple growers to hold back in their use of chemical thinning sprays. Researchers offer conservative recommendations not likely to cause undesirable effects, he pointed out. The big need now is to make more use of chemicals that are available, rather than search for new ones.

Careful records are needed for research purposes, pointed out John Barclay, fruit grower of Cranbury, N. J.



NEW WIND MACHINE TO COMBAT FROST

This wind machine designed by Harman T. Hodges, of Lexington, S.C., works on the principle of pulling air down, thus propelling it outward to protect orchards against spring frost damage. Two 10-foot propellers are mounted in a 10- by 16-foot non-rotating metal box-like arrangement which is open at the top. The National Advisory Committee on Aeronautics assisted in designing this box for the 19-foot-high apparatus.

DWARF APPLE TREES

Available on Malling I, II, VII, IX, Malling Merton 106, 109, 110 and 111.

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Sputnik Hits the High School

IN SOME universities college freshmen are surveyed each year as to what they like about college, how it differs from high school, and what they would suggest to improve the high school program to better fit them for college.

These college freshmen now say, "Increase the volume, difficulty, and quality of high school work. Require more speaking. Require more written work—essays, reports, themes. Eliminate spoon feeding."

In other words, Sputnik has hit the high school along with all the rest of us. It has hit you and your children and the American way of life more than many people comprehend. Make no mistake about it, in the lives of all of us there is a stiffening and a tightening as well as a desire for quality and performance.

And so, as we go into the season ahead, let's remember all of this. The satellite now in orbit affects Mrs. Consumer. She is asking for products which are just a little better, and she is seeking just a little better service.

Read the Label

THE man who knows how to read a book will look first at the title page, the preface, and the table of contents. He doesn't just wade in.

As we now get into the full swing of spraying, let's all be a little sure that we follow the same practice with our spray materials. Let's read what the manufacturer says on the label. Don't take too much for granted. Let's be sure we understand not only what the material is and how to use it, but let's also familiarize ourselves with any possible toxicities and dangers to animals as well as humans. After all, the label is there for a purpose. Get into the habit of reading it as a matter of routine.

Tranquilizing Plants

SCIENTISTS have already proven the effectiveness of tranquilizers on humans and animals in quieting nerves. Now they're studying the use of tranquilizers on plants. Tranquilizers, they report, help plants withstand the strains of weather, such as light

frost, drought, prolonged heat spells, and heavy rain.

Reaching the plant through its leaves, the tranquilizers also have increased yields, according to preliminary tests. Applications thus far are made in two ways: sprayed on at blossomtime, they help fruit-producing blossoms withstand poor growing conditions, or by earlier spraying, the number of blossoms can be increased.

Health Values of Fruit

A GLANCE at European scientific literature shows an increasing interest in the chemical composition of fruits, including the vitamin content. Poland reports on the vitamin C content of a score or more of strawberry varieties, France reviews the increase in vitamin C content of strawberries from the green stage to the fully ripe stage, and other French

CONVENIENCE FOODS TO KEYNOTE EXHIBIT

Convenience foods and the way they contribute to modern living will keynote the theme of the U. S. exhibit at the International Food Exposition June 13 to 28 in Lousanne, Switzerland. The U. S. display will feature prepared frozen and canned foods and meals, including fresh packaged fruit. Fruit also will be included among special displays on U. S. export products. The U. S. food industry and food equipment manufacturers are co-operating with USDA in presenting the American exhibit.

workers give the vitamin B complex values in grapes during growth and ripening.

This is the sort of thing we need more of in America. Color and attractiveness are important, but the nutritive and health values are the values that count in the long run, and upon which the fruit industry must finally rest.

Fruit Growing is Such Fun!



Fruit Talk

Manufacturers estimate that it takes five years to properly evaluate a new insecticide.

The per capita food cost in the United States, related to disposable personal income, was 23.1% in 1935-59, compared with only 15.6% in 1957.

Some idea of the supremacy of the United States in peach production is the 70,000 tons produced in 1958, compared with Italy's 24,000 tons, West Germany's 8000 tons, Argentina's 7000, Japan's 6000, Spain's 4000, and Turkey's 3000.

Cherry growers in northern Michigan report that young trees planted on subsoil bulldozed down to 12 feet did as well as trees on fumigated soil, whereas trees on non-fumigated soil did poorly and were barren of new fibrous roots, suggesting that the practice of filling tree holes with top soil may have its limitations in areas where the top soil is infested with nematodes.

Though long debated, it is now commonly accepted that perhaps the greatest overall value from chemical blossom thinning is the promotion of annual bearing.

Italy, with production of 185,000 tons of cherries in 1958, was 2000 tons behind the United States (187,000), and 2000 tons ahead of West Germany (183,000).

Miller, of Connecticut, describes a method of testing for the presence of nematodes in the soil—namely, placing samples of soils in two boxes, treating one with DCP (dibromo-chloropropane), planting both boxes with seeds or seedlings of tomato, okra, cucurbits, or cuttings of woody plants, and observing the relative growth for eight weeks.

If pesticides cost an apple grower 15 cents a bushel, he is on safe grounds; but if the cost reaches 25 cents, he is in for trouble.

Borgstrom of Michigan reports that on a recent visit to Russia he learned that high blood pressure had been effectively reduced by a diet of apples.

W. D. Weeks of Massachusetts has observed unusual hardness of Elberta fruitbuds (75% alive after -16° F), associated with little or no cropping the previous year and a conditioning temperature of below freezing for 10 days to two weeks prior to the low temperature.

The fresh fruit market for strawberries regularly discriminates against sandy berries, grown without mulching.

Farmers buy 6.6 million tons of steel annually, which is more than that used the entire automobile industry.

For a concise treatment of *How to Make a Fruit Farm Pay* try Cornell (Ithaca, N. Y.) Extension Bulletin 1013 by Garman.

—H.B.T.

Coming Next Month

- Peach Varieties and Tree Population
- Success with a Small Fruit Growing Operation
- Wheel-type Irrigation System for Peaches
- From Roadside Stand to National Landmark

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Prove it to yourself. Your John Bean dealer will arrange a demonstration in *your* orchard. Select the model that fits your specific needs from the new Diamond Jubilee Speed Sprayer Models. Call him today.



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SAN JOSE 1, CALIFORNIA
Division of Food Machinery and Chemical Corporation

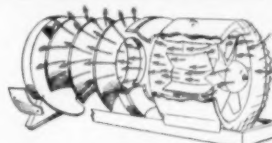
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5. **REAR AIR SCOOP SECTION** channels bottom air into the pattern for added efficiency.



"Captan has been my choice for years"

says: Sherman V. Allen, Allen Orchards
Fair Haven, Vermont

Mr. Allen adds: "I experimented with Captan for two years. I compared its effectiveness with other materials and looked at it from a dollar and cents standpoint. It proved to be such a good fungicide that from 1953 on it has been my choice from calyx through summer sprays."

Mr. Allen is typical of the many apple growers who have proved to themselves in their own orchards that it pays to use Captan year after year. Captan is their fungicide of choice because it is so rough on scab and yet so kind to foliage and fruit.

Stauffer Captan 50-W used in a full season schedule year after year has reduced scab to a minor problem in many orchards while

providing excellent control of fruit rots and other common summer diseases.

Captan controls scab in four ways:

- (1) Applied before an infection period, Captan protects foliage and fruit from infection.
- (2) Applied shortly after infection occurs, Captan kills out the infection.
- (3) Applied when scab spots first appear, Captan inactivates the spots and prevents further spread of infection.
- (4) Applied in a full season schedule year after year, Captan reduces the overwintering scab fungus to such a low level that it becomes easier and easier to control each succeeding year.

It is for these and other reasons that

apple growers like Mr. Allen continue to use Captan as their fungicide of choice, year after year. It is their experience that it does more for them than any other apple fungicide.

See your dealer for your supply of Stauffer Captan 50-W. Make it your fungicide of choice in 1959 on apples, peaches, cherries, strawberries and other fruits.

Stauffer Chemical Company, 380 Madison Avenue, New York 17, New York. Sales and service offices throughout the country.

Research, service and products of highest quality have made Stauffer one of America's largest specialists in farm chemicals. Look for and buy Stauffer brand INSECTICIDES, FUNGICIDES, WEED KILLERS, MITICIDES, SEED PROTECTANTS, FUMIGANTS, GROWTH REGULATORS, GRAIN PROTECTANTS, DEFOLIANTS.

